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HYGIENE

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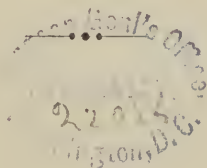
COMPENDIUM OF HYGIENE:

COMPILED FOR THE USE OF THE

WINSTED HYGIENIC ASSOCIATION.

BY LUCIUS MILLS,

PHYSICIAN TO THE ASSOCIATION.



WEST-WINSTED, CONNECTICUT.

1855.

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INTRODUCTION.

NO BODY swallows a drug, nor does any candid person advise one, who believes medicine needless. All physicians, however, admit the competence of the Hygienic Agencies to maintain the most vigorous health; and it is well known that the *nurse*, whose office is to furnish merely the helps of hygiene, is, for the feeble and those long afflicted, the character assumed by the most successful practitioners. And for those sick with a recent attack of any disease, the results of abstinence and nursing in cases unnumbered should content reasonable men to trust their efficacy, unless a truly learned and trusty guide is attainable. Less skill or fewer counselors in the retaining and the restoration of health, is by no means desirable; but a distinct marking out and publishing of what is truly known on the subject, and a furnishing of means for the universal application of that knowledge, are of the highest practical interest to all.

We will therefore present facts for the guidance of the nurse, and offer suggestions to continue those in their present state who are said by the Scriptures to need no physician.

PART I.

HYGIENE.



THE HYGIENIC AGENCIES *are air, light, water, food, temperature, exercise, sleep, clothing, and the passions.*

Air.—Most animals suffocate to unconsciousness if deprived wholly of air a single minute. A person oppressed and exhausted in hot, foul air, should abstain from food and resort to the pure and cool out-door air. In low diseases, in faintings, drowning, collapse of cholera, stoppage of the outlet of the lungs, or inhalation of devitalized and deadly air, the emptying of the lungs and the introduction of pure air is the indispensable condition of recovery. The great prevalence and fatality of ship-fever and cholera among the Norwegian and other

immigrants, is undoubtedly attributable, in great measure, to the poisoned air they breathe by shutting themselves up, often several families together, in a little close cabin or hut, in an atmosphere and with habits of life requiring the freest circulation, a strict diet, and pure water ; the reverse of all which is theirs. The importance of a pure atmosphere and cool temperature is shown, by the fact that the living body is in truth an animated steam-engine. The chemical process carried on in the lungs, which unites the oxygen of the air with the carbon of the blood, produces so much heat as to maintain a mean temperature of 93° throughout the system. 67° is the boiling or steam-forming point of water in a vacuum such as the blood is in, the lungs and circulating system. Coldness at the surface and extremities condenses the steam, and exercise, with the aiding valves of the veins, returns the blood to the lungs again. Experiments amply sustain this view. So that the abundance of oxygen and the rapidity of its consumption in the lungs, are the exact measure of the heat given out *to warm the blood and to produce power to convey it through the system* ; while the coldness of the surface by condensing the stream, contracts the vessels,

helping on the current and furnishing room for a new supply. The lungs are then the manufactory of heat ; and, since the source of warmth and of vitality is in the centre of the body, there is obvious reason for protecting that centre from whatever might waste its heat, prevent it, or obstruct its healthful diffusion through the system. While circulation from vigorous lungs is freely diffused through the surface and extremities of the body, their rapid cooling by contact with air or water, should give precisely the same alarm as when the condenser of a steam-engine is found colder than its boiler.

In the advanced stages of cholera, the blood ceases its chemical union with the air in the lungs, so that heat is no longer formed, and the lungs become filled gradually with carbonic acid gas, being less and less emptied at each breath, and then only of the unchanged air just taken in. In a number of well-marked cases, patients have snatched their lives from the grasp of severe collapse, by the most energetic and painful exhaling the gas from the lungs, and drawing in pure out-door air. Dashing on cold water has restored some, doubtless, in part, by giving action to the lungs and natural breath. Simple exposure to the air

has restored some carried from close sick-rooms as dead.

Air is about .21 Oxygen, .78 Nitrogen, .001 Carbonic Gas. Inflammatory diseases are mostly produced by changes in atmospheric heat. Light air, which sometimes takes a load of pressure from the body, tumefies it and disturbs the nerves. Damp air chills the skin and inflames the lungs, and when loaded with noxious vapors, as in cellars and thronged rooms, soon destroys health. Moist air and empty veins favor absorption; and in these states, be cautious of the matters presented to the indiscriminating lymphatics of the stomach, lungs, and skin. The sea air is good for nearly all diseases but consumption. Among miasms, keep in at night, avoid chilliness, and eat freely wholesome food. City-men do wisely to lodge in the country.

Light.—All diseases are more dangerous and protracted in low, dark rooms; and in epidemics the shaded side of a narrow street has an excess of deaths. Isolation in the open air is, by high authority, advised for scrofulous children. Light is a stimulus to the mind and body; it cheers the spirits and rouses the circulation and all the functions, giving proper

color, texture, and quality. Frequent exposure of the whole body to the air of a well-lighted room, attended with moderate friction, is very useful to those confined mostly in-doors. The rooms most occupied should be the best lighted. Light decomposes noxious vapors and gases.

Water.—The quantity of water needed depends on all the habits of life, the exercise, the food, the atmosphere. The best time for habitual draught is on first rising, and half an hour or an hour before meals. Persons morbidly sensitive should begin with but part of a tumbler. Water should be drank cool, not cold. Water should be pure. Lime-water produces gravel, and, in a large number of instances, those habitually partaking of it have been swept away by the cholera, while their near neighbors have almost or altogether escaped. Soft water often contains putrescent matter, (inflammable when dry,) a common cause of fevers, liver-complaint, and dyspepsia. Streams are better than wells or most springs, but not equal to proper cisterns. *Reliable tests* of the purity of water, or detectors of noxious articles infused, being therefore of great concern, the following are given: *Ebulli-*

tion deposits carbonate of lime. *Proto-sulphate of iron*, deposits with oxygen gas a yellowish-brown article in a few days. *Litmus* is reddened by a free acid. Lime-water throws down carbonate of lime, if carbonic acid is present. *Chloride of barium* throws down sulphate of lime (insoluble in nitric acid.) *Oxalate of ammonia* throws down lime, a white sediment. Nitrate of silver detects chlorine by a precipitate, not soluble in nitric acid. *Phosphate of soda* (the water being free of lime) will, with ammonia, show the magnesia. *Tincture of galls*, or tea with iron-water, makes ink; boiling prevents it with the carbonate, not the sulphate. *Ferrocyanate of potassium* yields, with the sesquisalts, blue; with the proto-salts, white, which blues in air. *Hydro-sulphuric acid* yields, with iron or lead, a brown or black. *Evaporation* and *ignition* yield odor, smoke, and charcoal or ashes, if putrescent matter is contained in it. Filtration can not remove dissolved impurities. Alum increases the hardness of water, changing the carbonate of lime into the sulphate. Alkaline carbonates do not improve water for drink or cooking. Lead, pure or in mixture, should have no contact with water for diet.

Food.—The children of New-England thrive, brought up on brown and rye and Indian bread, hasty-pudding, porridge, milk, butter, cheese, pies, fruits, and vegetables. The working men on the same, adding salt-beef, pork, and fish, with an occasional dish of fresh meat and poultry. The laborious may safely restrict the use of meat to one meal a day, and inactive people would profit by living entirely upon vegetable food. In all acute disease, a vegetable diet is one of the first means to stop inflammation; it would of course prevent it. The man of much labor must eat much or be like a half-fed ox. Damaged food should never be eaten.

When the stomach and duodenum are loaded with acid and putrescent secretions, grease mingling with them obviates the irritation; but *the free internal use of warm water and due invigoration of the external surface* are better than butter. Brandy and calomel often seem to agree with the dyspeptic stomach, when destroying it. The worst of common dishes are pork, (especially the fresh,) egg-yolk, liver, brains, strong cheese, butter-cakes and toast, pastry, marrow-puddings, suet-puddings, eels, sprats, salmon, herrings, and fatty stews, broths, and hashes. Fixed

oil in fruits, seeds, and nuts is more digestible and less putrescent. Gelatinous substances are moderately nutritious, but digest tardily and putrefy readily; and all jellies are trash compared with Indian or wheat-meal gruel. The excessive use of salt produces a putrescent condition of the whole body; it occasions glandular obstructions, rigidity of the muscles, irritation of the entire alimentary canal, poisons the blood, and deranges the excretory organs. Abating its use, the taste becomes keener, so that common food is relished without seasoning. In traveling by coach, car, and ship, take little and very mild food. Children are easily salivated, narcotized, cathartized, and otherwise poisoned through the mother's milk. The taste, color, and odor of milk are as the food; and the general health, as well as the ingesta, affects it more than any other secretion. When pure, however, it contains all the elements requisite for prolonged nutrition, and its moderate employment is perfectly proper for the healthy. Old, salty, or melted butter is a very deleterious producer of indigestion and rancidity. Strong old cheese is extremely indigestible and constipating. Decomposition sometimes makes it, as well as bacon and sausage, an acid poison.

Food should contain a large portion of fluid and of innutritious, solid matter ; so that those living on bread require a quantity of vegetables, roots, and fruits. Water is rarely obtained as pure as in the juice of fruits. A select animal diet is a corrective to one of baker's bread and pastry. A large proportion of invalids can be cured on plain, mixed diet ; but many patients must abstain from all animal food and milk, and the majority will obtain more speedy and thorough cures under a well-regulated vegetable diet. Nuts, with the exception of the boiled chestnut, are improper for invalids.

Temperature.—Heat is the most powerful stimulant in nature of the vital functions. Cold is most favorable to the maintenance of *latent* vitality. (Heat changes purple blood to scarlet.) The sitting-room should never have the air warmer than 60° ; that of the bed-rooms should not exceed 45° ; both are better below.

Exercise.—Laziness is a disease or a plain symptom of bodily disorder. Quiet children make inefficient folks. All parts of the body should be brought into frequent and active use until a degree of fatigue is induced, such as to

render temporary quiet refreshing. Mirth or profit should stimulate the motion. The constant, regular, and equally divided exercise of some useful business pursuit several hours a day, is essential to the health of both body and mind. Walking, dancing, riding on *horse-back*, and jolting are good exercise. Carriage-riding, sailing, and swinging are slight exercise, but excellent for the nerves of those otherwise withheld from fresh air and sunshine; which is all-important for very young children; and they, with a clear field and a plenty of harmless things, need little else. A full stomach disagrees with labor of the hand or brain, and rest before and after meals is desirable. As a habit, be moderate before breakfast, work hard in the forenoon, leisurely in the afternoon. The sedentary should habitually and regularly work with vigor in the early morning and evening, out-of-doors; and they should also stir themselves midway from meal-times. In severe and unpleasant weather, and in the absence of all tools, instruments, and fixtures, save a spot to stand on, any person, not extremely weak, may take enough of the most invigorating of exercise. Stand straight, bend the knees, fill the lungs, and spring up straight once and again till tired;

then rub all over till rested, and resume, and so on for an hour, the whole surface being exposed to cool or cold fresh air. The great consumption and dyspepsia cure of *Stewart, of Troy*, (the inventor of the best of stoves,) whose efficacy is certified by all the notables of that city, consists in eating hard Johnny cake and Graham crusts twice a day, and jumping up and down in slight dress with windows open three hours a day, with intervals of rubbing; powerful breathing to be maintained while moving.

Hulsted depends much on kneading and thumping.

Sleep.—Sleep while you rest, and no longer. A proper meal has no tendency to stupefy; though abridged sleep by night may require a day-time nap. Children should sleep all they please without dozing or coaxing; all others, what they can without waking between sun and sun. Lack of sleep produces insanity. *The bed* should be horizontal, and the pillow slight. Straw, husks, hair, and palm are the material. The pillow should be of hair or chaff; the sheets, of linen or cotton; and the outer covering, thin quilts and light flannels. Sleeping-rooms ought to be large and airy; and if, from

necessity, dark or damp, they should be daily fire-dried and aired; and through some channel *the ingress and egress of air must be always kept open.*

Clothing.—Cotton under-clothes are the best for winter, linen for summer; wool, silk, fur, and India-rubber, only outside. Light colors are much the coolest in sunshine. The hat should be very light, soft, and pervious to air. The beard is a useful protection; but to the mischief of removing it, *cording* the neck is an addition far more ruinous. The back and hips must not be laden nor heated; the head wants no greasing nor bundling with hair or other adornment. Stockings, except in great exposure, should be light and thin. Garters check the circulation. Fur gloves and rubber shoes ought to be rarely worn. Pantaloon straps weaken the knees. All the clothing of the young should be loose and flowing. The under-clothes and bedding should be frequently changed and daily well aired. Avoid heavy and tight garments. *Wear habitually similar articles.* Beware of suddenly exposing any part of the body usually protected. Unusual changes in the application of clothing and unequal temperature are more productive of

colds than extremes of heat or cold. When hot without exhaustion, sudden exposure to extreme cold is harmless.

Bathing.—The frequent bathing of the whole skin, first in warm and then in cold water till cured, is one of the most powerful means of removing eruptions. The bath must be used for months in obstinate diseases of the skin. The most violent inflammations may often be entirely subdued by the constant application of cold water or ice, and in certain states warm water is equally powerful. In fevers it has removed the heat and violence of the disease like a charm. It quenches the fear and soothes the skin as it quenches thirst. *Never spare water in a fever.* In nervous diseases, hypo, epilepsy, hysterics, palsy, and insanity, the daily *warm-bath* is more restorative than almost any other remedy. The *hot-bath* is in some cases better; as in the rheumatism, gout, etc., of cold constitutions: steam has the same effect. The *cold-bath* in fevers not attended with active inflammation lessens the heat, thirst, restlessness, and circulation, and induces sleep. In the warm season sponging half-hourly relieves the scarlatina. Bathe every day. The mode is not ordinarily of con-

sequence, but rubbing is. The best time is on first rising. In warm weather, an evening bath is very good. Water that is cool, but not causing a disagreeable or permanent chill, is the best. The colder and feebler the patient, the warmer the water. The cold bath is 60° and lower; the cool, 60° – 72° ; the tepid, 72° – 85° ; the warm, 85° – 100° ; the hot, above 100° . Infants need a daily bath; the temperature, the first three months, at 72° , and reduced 5° every three months for a year; afterward, from 65° – 50° . *Never bathe when the body is greatly fatigued, the breathing much disturbed, nor soon after eating.*

Excretions.—Healthy action of the bowels gives uniformly daily copious but not watery dejections, and without straining pain or irritation; without this state maintained by diet and exercise, no one can permanently enjoy good health. All the complaints peculiar to females, many of children, and a vast majority of the cases of dyspepsia and hemorrhage are from constipation.

Passions.—Cheerful spirits and a calm temper lengthen life; irritable and fitful feelings greatly abridge it.* Possess yourself.

* See note at end

ADDITIONAL REMARKS.

Air.—The morning air, like the morning sun, is the finest in its operation on the nervous system, and that system is then in the best position to receive its influences. The walk before breakfast is the most requisite of any in the day. The air of hills is the best, because the most dry and the most stimulating; and it thereby effects the greatest changes in the blood. Low situations, and even high situations, with a clayey, retentive soil, mar very much the curative process.

Exercise, by forcing supplies of blood into the coats of the intestines, increases their peristaltic motion. It aids equally the circulation and all the secretions and excretions. It must be regulated entirely by the state of the patient's nervous system, and by the food he takes and digests. When you excite the brain and spinal cord by walking, you excite by sympathy the great organic centre at the digestive organs; so that it behooves to consider the state of those organs, whether it be one of irritation and of excessive functions, or of oppression and deficient function.

Now, these conditions of the digestive organs

correspond with similar states of the brain and spinal cord; and therefore the same rule as regards exercise applies. Thus, in nervous indigestion, it is not well to take long walks or great exertion; for stomach and brain are acutely sensitive; whilst in congested liver, torpor pervades both it and the seat of the will, which should, therefore, be exerted in a strong and prolonged manner. Again, that which the food and the blood supply should not be spent faster than they can renew it. When a patient is incapacitated for walking, much friction of the limbs should be practised after each bath.

Diet.—In great feebleness, liquid food imparts strength sooner than solid; but in general, drink is better deferred till near the close of the meal, or omitted. Some patients should abstain from animal food three or four days in the week, and others for a week together. Some should be forbidden every kind of pudding after meat; others, all vegetable matter but bread.

All this is subject to daily change. In general, nervous indigestion is less tolerant of bulk than inflammatory disorder. Nothing oppresses a nervous dyspeptic so much as a mass of vegetable matter; whilst animal food, put into an

inflamed stomach, causes local pain and exquisite restlessness and distress. The physician should here show acuteness, firmness, and precision. In good health and activity, starvation is not advisable; but when the plagues have arrived, it is fit to give the stomach, the centre and sustainer of all plagues, as little to do as possible compatibly with the support of the body and with the amount of its exertions. Dry food gives the proper stimulus to the secretory vessels of the stomach; much drink is likely to produce an improper gastric juice. Let five and a half or six hours intervene between the three meals of the day, and let the last be a scanty one. Two hours and a half should elapse between the evening meal and bed-time; and the same time, at least, after any meal before any water-cure process is practised, except foot-baths, which may be taken as soon as you please. Sweating may be practised an hour after a meal. Fruit is best with breakfast. Two hours after a meal, a gill of ice is a fine tonic. *No gastric juice is secreted in the stomach until the natural stimulus of nutritious aliment is applied to its cavity.*

Clothing.—It is a leading aim of the whole treatment to bring to and *fix in the skin* a quantity of blood which shall both diminish

the excess within and render the skin more able to react upon external agencies, cold, damp, electricity, etc. The more habituated to a hot atmosphere, the less able does the skin become to react upon cold; and the more, therefore, does that cold tend to drive the blood from the exterior to the interior, and increase the congestion of blood there. When materials which ought to be expended at the skin are retained by a mass of garments excluding the air, they prove a source of general disorder. For such waste and elimination the presence of blood in the skin is necessary as well as that of air upon it; and it is, therefore, essential on this score also to fix blood there. The cutaneous nerves being imperfectly nourished, all changes pain them and irritate the brain. The skin should be made independent of artificial heat. Its warmth should be the result of the chemical changes actively going on in its blood-vessels; and its nerves, by the reaction of the circulation, should be able to throw off the sources of irritation. To withdraw the flannel jackets of every one, simply because he is a water patient, is a blunder of routine which would materially thin the number of successful cases.

When the skin has been long hermetically

sealed, let alone the clothing till the water-cure has empowered the skin to generate its own warmth. On withdrawing the under-clothing from delicate patients they will occasionally need extra outer garments for some time. When the need and use of extra clothing is overcome, past improvement is evinced and future promised.

Habits of Life.—The wild Indians are free from gout, rheumatism, consumption, insanity, worms, and deformities; and the laborers of Russia, Denmark, and Poland are mainly exempted; though, pent up in close ship-holds, prairie huts, or the dark, damp, and filthy lanes of cities, they *perish*. They all fare scantily; the first have a perpetual air-bath for both skin and lungs; the others mostly have a steam-bath in every house. Sexual abstinence and protracted nursing is the Indian practice; and abortions, leucorrhœas, and misplacements are strangers to them. The habits of the patients, not less than the bathing and the drinking water affect them. Habit governs not the mind alone, but every sentient twig of a nerve and every irritable capillary blood-vessel of every tissue of the frame. The chronic sufferer must learn to rise early and walk or work; thus acquiring an appetite (which, with

the digestion, pure air invigorates;) he must then eat; and early, as is fitting, retire. It takes a much shorter time to make good habits than it did to fall into bad ones. For a few days the feeling will be a little queer, as if "some how there was something somewhere wanting," but the withdrawal of internal irritations and the stimulation of water applied to the extremities of the nerves, and conveyed to their centres, very shortly affords to the latter a fully compensating support. Avoid hot rooms, easy chairs, and sofas. *Let all the day be accurately divided by baths, packings, walkings, readings, etc.; and let each division be rigidly adhered to and made a point of honor.* In short, make a business of the whole treatment; a business aiming at a great end. Have little written correspondence. The water-cure increases the appetite, the digestion of food, and, of course, the combustion which produces animal heat. "Drinking cold water," says Pereira, "facilitates the recovery of epilepsy, hysteria, and fainting, and alleviates gastric pain and spasm. Ice-water, or even ice when swallowed, causes contraction of the gastric blood-vessels, and thereby checks or stops sanguineous exhalation from the mucous membrane

of the stomach. It is a vital stimulus, and is more essential to our existence than aliment."

The causes of dropsy are the direct opposites of water-treatment and its effects ; thus diminished urinary secretion, obstructed liver, torpid skin, grog-drinking, stimulant diuretics, mercury, and drastic purgatives. In London alone, five hundred die yearly of the grog-dropsy.

CAUTIONS, ETC.—In chronic disease, water may either strengthen and sustain the system or remove its morbid matter and rejuvenate its life. Water loosens the slime-wrapped matters and propels them outward. Vigorous expulsive reaction is acute disease or CRISIS. All strong *crises* not of the digestive system produce full febrile symptoms, often slight inflammation, which medicine heightens to any extent. Water, well used, always ends these cases with sensible excretions. The acid and corrupt evaporations and oozings produced by the crisis, must not be suppressed nor retained on the surface, but be often cleansed away, and by moist warmth be encouraged. Water-treated boils, unlike others, leave neither scar nor stain. When the blood has been tainted, wounds badly healed, or the

sight left injured by dosing, water rouses a discharge that purifies to soundness. Patients of middle age and sound organs, should always have radical treatment; others, sometimes; though often invigoration must be the aim for them, and the force of its means as their strength. All but skillful water-cure practitioners apply water too cold and too long. In treating organic mischief, be always on the safe side; mildness can do no other harm than slightly hinder. Danger attends the feeble body, foul and disorganized in the crisis brought on by an improper stimulant administration; and, by a fierce aggravation of an old defect, death may be hastened. Many patients who are afflicted with organic defects and are still capable of cure, would die under immediate radical treatment. The water must first be used for invigoration, derivation, and insensible excretion. For this, the baths should be few, short, and warm; the blood should be diverted from the head and vitals, and specially the drink should be quite limited. For radical treatment, the baths may be more long, and colder water drank freely, etc. Four tumblers in the alleviating; ten or twelve in the thorough cure, is the medium allowance; though thirst and sufficient per-

spiration justify any amount. Paralysis of the bladder, and hematuria, are induced by excessive imbibition when there is cutaneous torpor. In radical treatment, particularly at crisis, visitors and every thing else must have not the least regard conflicting with the course. Business counteracts treatment. Coldness, carbonic acid gas, softness are requisites of the water for chronic cases. Towns abound in gustatory and other temptations, and the air and water are undesirable. There can not be, concurrent with business, wet-sheet packings, douche and wave-baths, stimulating sitz-baths, nor the drinking of much water; for their failure is common and their harm-doing probable. Drink should be from 44° to 50° , never higher than 68° . Some should commence at 55° . Only in case of almost entire stupor and pulselessness, should the full bath or general ablution be colder than 55° ; nor unless for merely relieving symptoms, warmer than 78° . As cold-water applications increase critical eruptions, much fever forbid them. Repeated warm-baths stop the progress of cure in chronic disease. Shock is hurtful to diseased nerves, and engorgement should be guarded against when there is enlargement of the blood-vessels or tendency to congestion;

both are produced by the cold, full bath, or total ablution. Repeated cures of severe nervous disease and varicose vessels have been effected by baths at 68° , after vainly trying cold treatment. Ice-cold baths, after a while, injure every one. It is agreeable and healthy to take a bath at from 55° to 70° in a warm room throughout the year, but at no time to spring from frosty air into ice-water. The tendency is to take too many and too long baths. *The vital energy is the real agent of cure, and water merely aids* by furnishing in part the necessary conditions. Good air and food, mental and moral quiet, proper clothing, and suitably interchanged and varied repose and action of body, are each indispensable also. How often and how long to use baths, is known by the strength of the patient. Every bath must produce *reäction* before another. Weariness forbids the bath; and baths taken with dread produce dangerous congestion. One fourth of a minute is amply long for an *uncomfortable full bath*; several minutes are proper if pleasant.

Chronic patients sometimes require warmer clothing than before treatment; there must be a comfortable warmth after and between the baths. Instinct is here the safe guide. For

chronic patients *walking is more salutary than gymnastic exercise* or dancing. The water-practice tends to cool till health begins to increase. Have the room and dress comfortable; the bath-room at 64°. The proportion of good crisis is the surest measure of the physician's capacity. Free gastric secretion requires contact of food with the whole surface of the stomach; so that when weak, it specially needs much bulk, and as it can not endure a load, the food should be *very light*.

PART II.

WATER-CURE PROCESSES.



Rubbing with the hands, flesh to flesh, is better than the sponge.

The sweating process.—Spread a blanket of the largest size on the mattress. The patient is enveloped and fitted about the neck and feet nicely, a urinal being inclosed. A light down bed is the best coverlet. Have the head raised. In two or three hours the perspiration should be free. Have fresh air, and at intervals some water. Wash the hands, face, and breast, before going from it into the half-bath or the plunge. Sometimes a tepid bath should be used along with the cold one; dress quick and walk an hour or two, taking a tumbler of water now and then. From half an hour to an hour is the time to continue the

perspiration, but it should in most cases be stopped as soon as there is fatigue. Trouble of the head, stomach, or nerves contra-indicates it ; and when it wastes the flesh, increases the irritability, or fails to secure full re action after the bath, it must cease. It aggravates the symptoms of a cold or influenza, and of fever. The fat, gouty, rheumatic, and the fair, sweat easier than the phlegmatic and congestive. When perspiration avoids certain parts, apply there a cold-water compress before the envelopment, and in time a morbid hoard will usually be disclosed. This is a natural means of great remedial powers, but its abuse has often done much injury, particularly when combined with the plunge-bath and douche. It is proper once or twice to transfer a susceptible patient to the bath as soon as heated well, before sweating commences. A cold compress on the stomach and bowels is a preventive of the headache. The dry pack should be confined to cases of chronic disease in the robust ; venereal, mercurial, gouty, and rheumatic patients with strong nerves, are the principal subjects. Keep a wet cloth on the head. Its use is to reduce the plethoric, and to warm up the torpid and chilled.

The wet-sheet pack cures the ills attributed

to damp sheets. Give a strong linen sheet, cold and wet, a smart wring on a pole, and spread it on a large blanket on the mattress. The patient, lying head raised and face up, has the sheet fitted snug to him up to the neck, including, in most cases, the feet; the blanket is then drawn over and tucked in well side by side; other blankets and a light feather-bed are piled on and tucked around. Duration, one half to one hour. Then take a half-bath, dress quick, and walk an hour or two, drinking water occasionally. This calms the nerves and vitals, strengthens and smooths the skin, and prepares it for the application of cold water or exposure to the weather with less discomfort or danger. After a long journey in sleeplessness, or a bilious state, this followed with a half-bath at 68° will renovate. In the eruptive and gastric diseases of children, it is a perfect safeguard. It brings all eruptive matters with certainty and promptness to the surface. In all disorders, trouble in one organ or group extends to the others, and the cure is found in allaying the irritation or inflammation there. And of all applications, the wet-sheet, properly modified, is the most soothing to the surface. In acute disease, it is frequently changed; increasing the intervals as

the heat decreases ; the half-bath follows. On the return of warmth, should the skin be dry, re-commence the wet sheet; and so on for hours. Patients of very low vital energy would remain cold and miserable, unless the sheet is applied warm, as at 70° or 75° . By fomentations many a prostrate patient has been brought to bear cold water. In some instances the wet-sheet is applied only to the trunk of the body ; and not unfrequently particular portions of the trunk must be excluded from the operation of the wet-sheet ; thus in asthma, a dry towel is placed between the front of the chest and the sheet ; irritability of the heart requires the same. But this applies only to nervous disorders of the chest. Should the patient warm in ten or fifteen minutes, an hour is ample time for the pack ; but if three times as long warming, he should remain a quarter or half an hour. (This slowness in warming implies an inveterate degree of irritation and oppression in some internal organ.) Some warm quickly, and headache and faintness show that the pack should be ended. As one great result of the wet-sheet is to augment and correct the mucous secretions, especially the digestive, the state of those membranes should be

accurately examined previous to ordering it and during its use. Free bilious discharges, detarging the liver and opening the bowels, are common. When this is desirable or not, the skillful should judge. Irritation being subdued, the wet-sheet, long-continued, depresses. Most acute cases, with high fever, need the wet-sheet; organic visceral defects and cramps forbid it; also, when the digestive system is the seat of the disease. The patient sleeping or perspiring, may remain packed till he wakes or tires, that is, while comfortable. The bath always in acute diseases is tepid. An improper packing, or too long a one, is dangerous. In crisis and acute diseases, six envelopments in twenty-four hours may be used; in chronic, sometimes two, mostly one, and in many they are a large part of the time omitted, and in some not used at all. The wet-pack reduces the heat and circulation, and rectifies the secretions. It cleanses and soothes. Its long use fixes a quantity of blood in the vessels of the entire skin. It should be done dexterously. If a chill is produced, rub thoroughly and dry-pack fifteen or twenty minutes. The half-pack is for the feeble.

The Douche calls for much judgment. It is water from one to four inches diameter,

falling from ten to twenty feet, conducted part-way through a tube. The time is midway from breakfast to dinner; sometimes, when warm and vigorous, in the morning or evening. It should fall first on the palms of the hands, and the face, head, and chest washed; then bring it on the shoulders, hips, loins, arms, and legs. The stomach and abdomen, as well as the head, must not receive it. Duration, five to ten minutes, or less. It powerfully excites the activity of all the functions. It increases local irritation. It is not allowable in apoplectic fullness or nervous indigestion. It answers for not more than every other patient. 55° is the highest temperature. Warm douches are good in some instances. It is a rouser of absorption; but may too much excite the nerves or congest the brain.

The Shallow-bath answers all the purposes of the plunge without the risk. In this the patient sits from two to ten minutes, rubbing, and, aided by an attendant, receiving once or twice a pitcher of water on the head and shoulders. Blood is determined to the lower extremities, the surface invigorated, and its circulation equalized. By the wet-pack the blood is drawn to the surface, and the skin made sensitive. Friction in the shallow-bath

increases and fixes the circulation there. The more intense and great fixature of blood in internal parts is, the more frequently this process requires to be repeated, and the longer continued. After sweating, it should be used cold from two to ten minutes, to fix a good quantity of blood on the exterior. The shallow-bath and frictions should entirely supersede the plunge, at least for the aged. Their power over the circulation and nerves is immense. In sudden inflammations, congestions, and collapse, the shallow or half-bath is the resource and warranty of hope. Its temperature must be lowered and its duration prolonged, from one to four or six hours, with friction. The shallow and half-bath is powerfully alterative, mildly derivative, and moderately sedative. It is used generally at from 65° to 75° . Water, from four to twelve inches deep. Time, one to thirty minutes; and, for preternatural heat of surface, while it lasts. Rub well all over during it.

The Sitz-bath is important in almost every disorder. The water should reach to the navel, and the patient should use friction to the abdomen, from time to time, with the hand. A little water taken at intervals aids. It is tonic or derivative. In the former, it is cold,

and seldom continued over fifteen minutes. Short sitz-baths always require frequent repetitions; sometimes six or seven in twenty-four hours. They are of use in all cases of debility or congestion of the lower bowels. But the great use of the sitz-bath is its *derivative* effect. This is called for in some phases of brain-congestion, in obstructions of the liver, congestions of the stomach and its nerves, stoppage of courses, and constipation of the bowels, including all digestive and nervous complaints. It unloads the head and upper organs of digestion, and *congests the pelvis*, increasing the secretions and functional power of its organs. The tonic effect is obtained only under 60° . For derivation, the degree is determined by the state of the patient. If he must remain cold for want of exercise, the result is tonic. For the feeble, tepid water should, at first, be used. The sitz removes flatulence, colic, and vomiting ever so violent; and it is invaluable in dysentery. For bracing the stomach and bowels, this bath should last from ten to fifteen minutes; for hemorrhoids, from fifteen to thirty; for derivation, sometimes an hour and a half. For severe plethora of the head and heart, use a tepid sitz-bath of 78° or 88° ; then reduce to 42° or 50° , and in ten minutes give

a cold fresh sitz-bath, and continue it usually till chilliness. Beware of paleness, shivering, or nausea.

Foot-bath.—This contains from one to six inches of water, and lasts from three to thirty minutes. Friction must be made with the patient's feet or attendant's hands. The brain and pit of the stomach sympathize strongly with the feet. This bath has removed hysterical insensibility in four minutes. Foot-baths should be prepared for by the nervous with wet friction for weeks. A time of their being warm must be taken, which is commonest at or near night. For warming, it lasts ten minutes; for derivation, aiding the sitz, twenty. The warming are tardy but effectual, and are best *walked dry*. Walking in a shallow stream causes headache, female weakness and obstruction, and cold feet.

Dripping Sheet.—This is taken out of a pail of cold water and thrown over the patient, who rubs in front, his helper behind. After two or more minutes, a sufficiency of dry rubbing is given. It is an excellent cooler and tonic. It produces a strong and general determination to the whole surface.

Wet Compress, or Bandage and Wrappers.—This has wrought wonders from of old. It

is so applied as to produce either heating or cooling. For the first, the applied wet linen is exposed to the air and *often* renewed; for the second, wring thoroughly the linen, carefully cover it with dry cloth, and not renew until dry, or after some hours. The cooling is used when a lessening of action or the preventing of inflammation is indicated. The heating is usually applied to the abdomen in the treatment of nearly all chronic diseases, particularly of the liver, stomach, bowels, kidneys, or the large ganglionic nerves behind the pit of the stomach. Over it is worn a thick, dry bandage. In case of great want of reäctive power, apply the wet part only to the front of the abdomen. When it produces hysterical symptoms, let it be kept on only an hour or two, or only while walking. It is a counter-irritant, a regulator of the bowels and cleanser of the skin. The universal rule for local application is, *suit the feelings of the patient*. But the warm and the hot are only for occasional use, and rest should follow. Bandages should in all cases be of cloth. Crash toweling is suitable. The chest-wrapper and the girdle need wetting four times in twenty-four hours, omitting them such parts of the day as comfort may demand. The wet-girdle,

the most used of hydropathic means, is three yards of crash, one half of it wet, two folds in front, one behind of the wet. The wet dress bath is for self-packing, and, the blankets being loose, it may be worn all night. Neglect in the change of the wet compress is productive of the worst evils.

The plunge is good for fever and inflammation, and to exhilarate; those with tubercles, dropsy, organic lesions, or unbalanced circulation should avoid it. Time, till cool.

Swimming-bath is good for weak lungs and costive bowels. *Affusion* is for cooling. Entire bathing by the half-bath affusion, ablution, or the shower is milder than the full bath or plunge.

Head-bath.—In acute disease, use folds of wet-cloth, and pouring; but as a derivative or sedative, rest the head in a vessel of water fifteen or thirty minutes; this helps the eye and ear. The best *eye and ear-baths* are obliquely ascending douches or showers.

Nose-bath.—Long-continued sniffing and ejecting by the mouth are very extensively useful.

Mouth-bath is for heat, sore gums, bad taste, canker, falling uvula, etc.

Arm-bath is for swelling, old ulcers, etc. Causing pain, use heat.

Hand-bath is for coldness, warts, and whitlows.

Leg-bath is a boot-shaped tin vessel; or, for cripples, it may be of India-rubber, with straps to hang it on a chair. Time, one quarter or one hour. This produces no metastasis unless it chills.

Drop-bath is for obstinate chronic paralysis. Follow it with powerful and continued rough friction.

The *Shower-bath* is one of the worst to commence with. It is contraïndicated by nervousness and unbalanced circulation. It answers for the douche, plunge, wave-bath, cataract-bath, etc.

River—time, 1–20 minutes.

Fountain or *spray* is a mild excitant.

Rain-bath. To walk rapidly a mile or two in a shower combines well the wet-pack and drip-sheet; rub well and exercise dry a half-hour.

Towel or *sponge* should be daily used everywhere.

Vapor-bath is adapted to the torpid and phlegmatic. It should always be followed by the shower or plunge.

The temperature of baths should be regulated by the sensations of the patient, especially for the feeble and the delicate.

Friction helps capillary circulation and reaction.

Clysters all employ in constipation. In critical and other acute diarrheas, clysters at first relieve, then cure. Water changes back a typhus into a dysentery. Sluggish evacuation, partial digestion, and innutrition indicate tough slime; for this, give two or three clysters a day. They should be of one fifth quart, for the weak; and for children, less. The bowel resisting, stop. They should not be very cold, but of moderate temperature at first, and always with the nervous, the shattered, and at the female turns. They strengthen the part. Cold clysters and copious water-drinking give nutrition an excess over thought. Clysters are relaxing or tonic. On a bowel attack, use copious tepid injections of *a quart* or more, and then moderated cool ones.

An India-rubber bag holding a gallon, elevated six or ten feet, furnishing water through a tube, and fitted with pipes suitable for conveying the water up the vaginal or intestinal passage, *is very convenient*.

A *Speculum*, made of a sheet of zinc wire-

work, four inches long, and from half an inch to two inches diameter, should be introduced and retained during the cold hip-bath, for relaxation, etc. In uterine hemorrhage, it is a specific.

RULES.—*All patients should leave all baths without a depressing chill, and during the first reâction, before a second chill.* Frequent and short baths are mostly the best. Take full baths midway of meals. Meals should not immediately follow any bath. Bathe while in a glow from exercise, and afterward exercise to slight fatigue. In summer, move most before breakfast. A moderate *pouring* of water on the head is useful to many. Exhaustion and disturbed circulation or breathing forbid a cool bath. Of several daily baths, take the strongest in the morning. Wet the head and chest before a full bath. Always drink after a bath, and then exercise.

Water-Drinking.—A morning glass from the spring dilutes and takes away all bile and slime, cools the stomach, and equalizes the blood. When the coats of the stomach have sucked it into the circulation, it goes first to the lungs, and then all over the system, cleansing and beautifying everywhere. The use of cold water may be very gradually adopted by

a stomach much diseased. There are cases in which it produces great disturbance, and others in which the progress toward cure is checked by drinking largely and at wrong times. No agent can so arouse the vital powers to self-restoration and arresting or overcoming disease as *pure water*. Modifying its temperature, it is the most powerful, manageable, and certain of remedies; and, by varying the modes of application, it will produce all remedial effects. In cases depending on unequal circulation or distribution of the blood, or tendency to the head, irritability of the pulse, and severe nervous indigestion, *much water* (and the colder the worse) *gives an injurious shock*.

From three to six tumblers daily, raised now and then to 58°, are the limits for such. The cold of the water stimulates the blood-vessels of the mucous membrane, and expels the blood from them. For this reason it is that *it is necessary to drink some water after every bath*, this last causing a flow of blood for the time toward the internal membranes; to remedy which cold water is drunk and exercise taken immediately. Without these precautions, the external processes would fail of half their good effect, or be hurtful. But if the blood-vessels of the mucous membrane are

excessively irritable, this stimulation by the cold may cause violent reaction, and thus actually increase the quantity of blood in them. Free water-drinking stimulates the stomach to contraction or hunger ; but excessive, to spasm. Absorption is quickened by exercise ; but a patient distressed by a load of water finds *that* difficult or impossible. In the proper quantity, however, water is one of the most effectual sustainers of the animal nervous system, and of locomotion. Small draughts of cold water give comfort and alacrity on the morning walk to many who would otherwise, unbreakfasted, move in distress. There are cases of torpid and obstructed function, in which it is both safe and necessary to prescribe copious water-drinking. In these nothing short of considerable stimulation of the nervous and circulating systems by the cold, the bulk, and the action in the capillaries implied by the water, suffices to bring into play the conservative power of the body. But there is nothing to fear for the head or heart in such cases ; the functions of both are far too much oppressed to be suddenly driven to the other extreme. Water should be drunk in that state of the stomach which best fits it to receive and to transmit its stimulus, as well as to absorb it

most readily. A smaller quantity suffices than under other conditions. When the stomach has been a few hours empty, its nervous and absorbent energy is accumulated, and the brain and the whole nervous system, by a similar rest, are in the best state for receiving stimulation from the stomach. The early morning, therefore, is the time best fitted for water-drinking, the principal portion of which should be practised at that time. For a like reason, water should be taken three or four hours after meals, and after every kind of bath. Exercise, to promote absorption, should follow drinking; and, when heated, drink slowly. To drink with the stomach empty, is a universal rule, except in cases of mucous indigestion. In them, usually a tumbler of very cold water, taken in sips, within an hour or two after a meal, aids the digestion. The full-chested and florid want much drink; the thin and nervous, little. Quench thirst; drink little at meals; and, for the delicate, the degree should be 55° or 65° . It is never advisable to drink more than one tumbler of water at a time; exercise should precede the taking of a second; thus taken, much cold water increases the appetite.

P R O P O S I T I O N S .

1. Disease is a condition in which the feelings and functional actions are unnatural or painful.

2. It is referable to some injury, to some excess, or to some privation.

3. It is originally, in all cases, acute.

4. Acute disease is the effort of the affected organ or organs to throw off disorder upon some less important organ.

5. This wholly failing, death ensues.

6. Partially successful, chronic disease is established.

7. All disease is internal.

8. Acute disease is the violent effort of the internal organs.

9. Chronic, the enfeebled effort of the same.

10. The original causes continuing, *organic* disease commences.

11. With sufficient power, the *acute* effort always cures.

12. When disease has become organic, the system is defeated.

13. Scientific treatment develops the power of the system.

14. *The invariable object* is the removal of

the excess of blood retained in the affected organ, which retention is called acute inflammation, chronic inflammation, and congestion.

15. The organic nerves being the controller of the circulation, they need strength.

16. Violent and sudden stimulation of the nervous system of the internal organs is invariably followed by exhaustion and increased inflammation and congestion.

17. Gradual and well-regulated stimulation of the nervous system conduces to the development and maintenance of its strength.

18. It is more steady and certain the more extensive its application to the *entire* nervous system.

19. To the skin and the lining membrane of the lungs and digestive organs, it should therefore be applied.

20. *Pure air* to the lungs, *proper diet and water* to the digestive organs, and *water* to the skin, stimulate and strengthen most effectually.

21. *Exercise* must be added to develop the powers of the brain and spinal cord.

22. In the due apportionment of these agents consists the scientific and the safe practice of the *water-cure*.

23. During the roused efforts of the system, any diversion of those efforts, or centering the

stimulus on the more important organs, augments the mischief.

24. These diverting and centralizing stimulants are alcoholic and other drugs, hot and foul air, and mental excitation, which, with the *mal-apportionment* of the stimulus obtained through water, air, diet, and exercise, are the “dangers of the water-cure.”

25. The stimulation should produce a steady effort of the system to save its vital parts at the expense of the others.

26. This renews the secretions, opens the bowels, kidneys, and skin, or acts upon the skin; and such result is the CRISIS.

27. The *crisis* is not the instrument of relief, *but its signal*.

28. Diversion here, though not ordinarily apprehensible, is ruinous.

29. All treatment, except for present alleviation, here ceases.

30. As crisis is the proof of a cure of the internal disease, there will be no recurrence of its symptoms, unless its causes are reëplied.

31. Complete recovery is often accomplished without an obvious crisis.

The capacity of the lungs to contain blood, and of blood to contain oxygen, are determinate quantities; hence exercise, which quickens

simultaneously the circulation and respiration, is indispensable.

Repeated cooling of the whole or of parts of the body necessitates a rapid generation of heat, and this a rapid transformation of the tissues and increased vital energy; the conditions most favorable to the throwing off of diseased action. Most or all morbid agents act primarily upon the ganglial nervous system, which alone supplies the blood-vessels and the secreting organs and surfaces, depressing, disturbing, and arresting the vital manifestations of the head, chest, or abdomen.

When one organ or system is diseased or excited, the functions of other organs undergo a relative degree of change. The capillaries depend, for their tone, on the due supply of nervous energy distributed to them by the ultimate filaments of the organic nerves; when this nervous energy is impaired in any way or degree, their contractile power is diminished, and they admit a larger current of blood with a slower motion. This distending is, in the veins, called *congestion*; in the arteries, *inflammation*. The relative success of treatment will depend on the natural advantages of locality, and the extent to which all the hygienic influences requisite are enforced. Defects in any

of the requisite conditions will proportionably mar the success of the measures. Reaction is in direct proportion to the coldness of the water, the suddenness and duration of the impression, the vigor of the circulation, and the heat of the surface and extremities at the moment of contact. Much, if not most, of the stimulant effect of water comes of the *shock* in its sudden application. The spinal system is the medium of this impression; hence cold applied to the head or spine equally lulls morbid sensibility, or arrests a hemorrhage in a distant part, as when applied to the seat of the affection. Combined cold and wet, only when without sufficient exterior covering to prevent evaporation from the surface of the body, are injurious. The gradual transition from heat to cold produces scarcely any reaction. Excessive reaction in the weak must be guarded against as much as defective reaction. *Sedation* may easily be carried too far, and refrigerants must be without interval during it, or reaction will occur. *Tepid applications and the wet sheet are decidedly more efficacious than cold water to reduce inflammation and fever.* The wet sheet is the best of refrigerants; it is as potent and easier controlled and graduated than any other. *Never omit to warm up the feeble and languid*

before bathing; movement and friction use also in the bath.

The cold hip-bath is contraïndicated during the menstrual period. When warm from bed in the morning, is the best time for ablutions; a smart walk after it, or, for the weak, a return to bed, with friction, insures reäction. The frequent and prolonged affusion of cold water upon the head, even to the production of intense pain from the chill, is one of the most powerful tonics of the nervous centres.

Water-cure.—A rural situation is best for chronic diseases; an elevated situation with clear, bracing air is one of the essentials, and is even more important asleep than awake. To inquire of the assembled patients at a water-cure for the dangers, provokes a general laugh. The length of treatment depends much upon the time the ailments were attaining their extent and complexity. Weaning from old habits being over, which is painful proportionate to their badness, a readiness for mental and bodily exertion and greatly increased cheerfulness soon result. Food is relished and digested, and the sleep is sound. The complexion becomes fresh, the eyes clear, and the breath sweet. The whole apparatus of diges-

tion, from the teeth to the liver, is improved and vitalized.

Empiricism is the employment of remedies whose action is unknown or uncertain, against diseases whose real nature is equally obscure.

PART III.

THE PULSE.



THERE is no surer test of the existing degree of vitality or of the balance of the circulation than it. The main pressure is to be applied towards the heart. The finger farthest from the heart will detect its cessation. A regular pulse is uniform in force, frequency, and fullness. A quick pulse strikes sharply and suddenly; it is seldom over 90°. A tense pulse is like a cord fast at the ends; and thus and quite hard and small is *wiry*. A sharp pulse is abrupt and rapid. Whenever there is a *preternaturally strong pulse*, the cold ablution or cold wet-sheet may be freely employed and safely continued. A hard pulse also calls for cold applications. The soft pulse is healthy; and with it treatment must be mild.

The full pulse generally tolerates cold applications. The contracted pulse indicates capillary obstruction and intense engorgement. The frequent pulse indicates irritation or inflammation, and, when very frequent, great debility. Mostly in chronic abdominal disease the pulse is slow; but in all those of the chest it is frequent. The slow pulse indicates torpor and indigestion; the quick pulse indicates more irritation or inflammation than the hard; the tense, excessive irritation with debility; the tremulous, extreme nervous debility, with violent irritation or excessive internal congestion; the weak, debility; the small, the same, with some local irritation; the sharp, the same, with great local irritation; the double usually attends organic affections of the heart or large arteries; sometimes, very nervous dyspeptics. The intermittent is common with dyspeptics, the nervous, the constipated, the sedentary, and the old. It indicates visciditv, obstruction, or exhaustion.

The time of life varies the *pulse*. In embryo it is 150; in the first year, 125; second, 100; third, 90: seventh, 85; puberty, 80; manhood, 75; senescence, 65. The pulse of females is eight beats faster than of males; that of Indians as much less than that of

whites. A cord with a weight vibrates seconds; by it one can count and another feel the pulse. It is well to count the pulse at two or three times before leaving.

The Tongue.—A thermometer placed under it aids much in diagnosis and prescription. Coldness of the tongue shows the same of the breath and the sinking of vitality. Real *fur* adheres closely. White fur attends active disease; yellowish, bile; brown, typhus; pallor, bloodlessness; redness, mucous inflammation; dryness, fever; enlargement, local disease, perhaps approaching salivation; contraction, bloodlessness or weak circulation. The color, quantity, frequency, and quality of the *facès* should be observed. The menses occurring in a severe disease denote recovery. In general the more pain the more vitality. An issue seton, moxa, sinapism, or poultice, and specially electro-magnetism, may be used with profit. Fainting need not alarm unless in great hemorrhage or child-birth. Lockjaw is always fearful. Convulsions with stupor and heat in the head are alarming; more so in the old, and in the puerperal highly dangerous. Low delirium in protracted fever and in consumption is ominous. Squinting in brain disease denotes danger. An unnatural state of the pupil is

unfavorable; restlessness, picking the face, twitching its tendons, grinding the teeth in protracted disease are bad. The eye-ball partially covered and turned up shows danger.

Males are more liable to rheumatism, gout, apoplexy, paralysis, mental disorders, those of the lungs, of sensation, circulation, of the urinary organs, and inflammation; females, to catarrhs, dropsies, convulsions, stomach and bowel disease. Diarrheas and other exhausting discharges injure females less than males.

Farmers hurt themselves with hard water, gross or poisonous ingesta, hot and close rooms, especially for sleeping.

Crisis.—Under water-treatment, acute diseases are generally relieved by mild efforts of the excretory organs without crisis. But of chronic cases, some recover after repeated disturbances; others after one or several paroxysms of general or local excitement, attended with some profuse evacuation, severe eruptions, feverishness, or an aggravation of old aches.

The most common forms of crisis are diarrhea, boils, and general feverishness. The boils are of all appearances. The diarrheas continue from three days to a fortnight, with from three to eight watery motions in twenty-four hours. In those subject to piles, there is

greater frequency, a dragging sensation about the lower bowel, and much mucus, often bloody. This looseness is but slightly debilitating ; and is easily checked by hot sitz-baths and cold injections. Those with torpid livers, constipated bowels, and bloodless skin, mostly have bowel crisis, and always with benefit. The feverishness of crisis, unlike a febrile paroxysm, has not cold, hot, and sweating stages. After a general disturbance, from one day to a week, the balance is restored and the patient improved. For other manifestations, soothing may be employed.

Management. — Omit part or all of the stronger baths. Suit the patient as to exercise, and use water locally of the pleasantest temperature. Violent headache is helped by hot abdominal fomentations. General soreness and irritability require a hot bath of ten minutes ; and for debilitating diarrhea use the hot fomentation or hot sitz-bath, with cold injections. Crisis wholly over, the treatment may go on. Many bad cases of chronic disease are cured without any appearance of crisis ; and some are incurable without a decided one. Cold, shocking, and continuously chilling treatment produces severe and dangerous crisis.

The correcter the diet the milder the crisis.

When disease and disorganization are extensive, general and partial crises may be many before health is reëstablished; and it often happens that patients of such condition, if not greatly debilitated, for the first month feel great relief; then find a slight aggravation of their trouble stationary for months; and in a few months more their health is good.

For such cases, the reëstablishment of firm and vigorous health may require years, and is influenced by every circumstance of life.

FEVERS.

A fever is a general corporeal disturbance with successive heat, coldness, and sweating.

Causes.—Poisons, bad food, water, or air, too much work, food, drink, or dirt, and sudden changes.

Type in a vigorous man will be inflammatory; causes—powerful, typhoid. Feeble and sedentary, typhus; with engorgement, congestion. If either was a gross feeder, he will be bilious. The worn-out dyspeptic will have the nervous form of typhus; and if of gross habits, the putrid form.

The *Yellow* comes of heat, polluted air, drink, and gross food, which specially impair

the secretion of the liver. The other forms of typhus are the common fever, merely modified by local and personal causes.

Remittent may be nervous or putrid; it has excessive obstruction and engorgement of the liver and spleen.

Intermittent results also from vitiated air and decayed matters received into the system.

Symptomatic is constitutional irritation from chronic local inflammation; as, hectic, puerperal, mesenteric, and milk fevers.

Eruptive fevers depend on a specific fermenting virus. The wind bears currents of deadly virus hundreds and thousands of miles. Our only defense is good health.

Rationale.—If the causes of disease, impurity, obstruction, and exhausted nervous power, diminish the depurating power of the skin, the liver, bowels, kidneys, and lungs increase their labors to keep the body pure. But after all, the excretory functions are impaired; hence the effort to relieve the system must be general. Universal commotion takes place. Some organs are originally stronger than others; some more injured by bad habits or previous disease; hence there is irregular and unequal action in nature's general restorative effort. The cold stage is the expulsive effort,

the hot the reäction. One paroxysm may suffice to cleanse and regulate the vital machinery ; if not, another and another succeeds. Drugging, often, instead of assisting, weakens or obstructs these efforts and adds other hostile agents for nature to overcome. Duration, of inflammatory, one to two weeks ; nervous form of typhus, four to eight weeks ; the putrid form, two to three weeks ; remittent, two to four ; intermittent, often "broken" in a few days, (seldom cured ;) ephemeral, frequently converted into a protracted one by mistreatment. The danger of fevers is as the weakness. Allaying the heat is removing the danger.

General Treatment.—Equalize the circulation and purify. Bathe. The temperature of the body is the sure and invariable guide for the water processes. For a hot surface, *frequent* cold ablutions or rubbing wet-sheets or wet-sheet packs. The pack is the best of tranquilizers. Heat returning, resume the same. For cold feet, apply hot water or a bottle. In low or nervous fevers, there is often great irritation of the head, and great torpor of the lower limbs ; in these apply cold to the head and heat to the feet before using the wet-sheet or other baths.

In very low fevers, and in all cases of extreme prostration and unequal temperature, *frequent tepid sponging* is better than the pack or ablutions. Local pain and spasm should have the most comfortable applications; usually cold for heat, tenderness, and distention; warm, for periodic and spasmodic affections. Cold cloths, or better, a *cold stream*, on the temples and back of the head for several minutes, subdue severe headache. The same will generally relieve the severest retching, nausea, and vomiting. Says Millar, "I treat all fevers, fever and ague, etc., alike. Bathe at the time the fever is the highest; if it is going off, I wait till it returns. When it gets to the highest, I put the patient in a hogshead of water, entirely under, three or four times, as long as he can conveniently hold his breath; then let him dabble in it up to the chin, until he feels comfortable. I then wipe and dress him and let him go.

"I pay no attention to the temperature of the water, the object being to bring the patient to the natural heat; and this can be done in fifteen or twenty minutes. Pouring a bucket of the coldest water over the back of the head, from one temple to the other, moderately, at the height of the fever, has the same effect

that bathing has. If the water is not poured on long enough, the fever will return in a few minutes; but repeat the pouring. I have tried this plan more than thirty years, and have never failed. It is a permanent cure. Pouring water on the head also relieves the stomach in two minutes. In following the above plan, *care must be taken to keep the lower extremities warm.*" A good domestic arrangement is a wash-tub with two pails of water at 65° or 75°. In this, wash the patient over the back and chest while sitting; having, at the same time, on the head, several folds of cold wet linen, often changed, and the feet, unless quite warm without it, in a pail of warm water. The patient may remain thus five or fifteen minutes, if strength permits; and the process may be repeated on an increase of heat. If the patient is too weak, treat the head and feet as above, and sponge the whole surface frequently with tepid water while the hot stage continues.

In low fevers, where the pulse is very small and weak, the head oppressed or giddy, with great tendency to faint on slight exertion, soak the feet occasionally in warm water, and apply very cold compresses to the head at the same time. And whenever there is continu-

ous heat and tenderness about the stomach, bowels, and back, apply to them cold wet towels. And use frequent tepid sponging all over, for heat and dryness of the surface. Water drinking should be free for thirst; and for great superficial heat and dryness, it should be taken freely, even without distinct thirst, though little at a time.

Excretions.—The bowels should be early opened by tepid injections; afterwards as often as fullness, hardness, etc., indicate. Indian or wheat-meal gruel is a regulator of the bowels. Copious warm-water draughts relieve nausea and distress from acids, bile, and irritating secretions in the stomach and duodenum, with or without vomiting.

Regimen.—Dampness and chilliness should be excluded from the sick-room. The influence of *light* is not only vivifying to the patient, but it tends also to decompose and dissipate putrescent and infectious particles which gather in the sick-room. The patient should drink at all times to the full satisfaction of thirst, although not in excessive quantities. Food should not be taken at all until the violence of the fever is materially abated, and then very small quantities of the simplest only. The fever will always starve out before the

patient is injured by abstinence, at least under hydropathic treatment, and the appetite will always return when the system is capable of assimilating food.

Complications.—Irritability of the stomach, and vomiting, can generally be quieted by the free use of warm water, followed by bits of ice or sips of very cold water, and the cold compress. Hot bottles to the feet, and cold cloths or a cold stream to the head.

Diarrhea requires hot fomentations or warm hip-baths, followed by cool or cold injections.

Hemorrhages require the cold compress, cool or cold injections, and bits of ice or sips of ice-water, with the hot foot-bath.

Tympanitis the same, with occasional hot fomentations.

Abscesses and *boils* need the wet compress.

Loose hair should be cut short, and the head often wet with cold water. Constipation is relieved by tepid injections.

Dysuria is mostly relieved by the fomentation or hot sitz-bath, followed by a cold compress or a dash of cold water.

Topical inflammation and dropsical swellings, each require cold compresses frequently renewed.

Relapses in water-cure convalescents are not.

Ephemeral fever.—Treatment. The wet-pack for an hour, followed by the dripping sheet, or cold ablution, or free injection, with fasting.

Inflammatory.—Tongue, white with red edges, pulse strong, heat much, urine scanty, surface turgid, mind but slightly disturbed. After the ninth day there are typhoid symptoms. Wrap the patient in double wet-sheets and wash in cold water; and repeat as often as the heat increases. Millar's immersion plan suits here. In fact, plenty of cold water, however applied, will finally cure.

Congestive fever has great vital prostration, pulse generally frequent and weak, respiration often difficult; and, strikingly, the sensation of internal burning, with violent quenchless thirst. Arouse the vital energies as soon as possible by cold and friction; water at from 60° to 70° is, in most cases, proper. Continue the bath till the burning and thirst cease.

Ten years ago, the family of President Green, of Whitesboro, N. Y., were prostrated with the bilious congestive fever, then prevalent and fatal. He took out the windows and set open the doors of his house; and all recovered.

“In the *yellow fever*,” says Dr. Rush, “cold water applied to the head by napkins, and to the bowels by clyster, eased the pain; and applied to the feet, reduced with certainty the force and frequency of the pulse. Perfect exposure of the surface to a stream of fresh air is highly salutary. Lodgings should be had in an open place; the sleeping-room on the second or third story; rest and shelter and temperance all observed. This fever has yellowness, epigastric tenderness, and irregular type. It requires the coldest wet cloths, pounded ice, or the pouring head-bath. The stomach requires the cold compress. For retching, give warm water freely, then sips of ice-water or bits of ice, and place the feet in warm water five or ten minutes.

Nervous fever has great mental disturbance and dejection. Pulse frequent, weak, and irregular. Tongue has a white thick mucus; eyes suffused, heat unequal, muttering delirium, countenance expressionless, skin irregularly dry and sweaty, urine whey-like. The symptoms progress gradually.

Rarely the wet-pack is called for. Usually heat wants equalizing; the abdomen, cold wet towels; the feet, warm water or warm bottles. After this, sponge the whole surface often with

tepid water. Tepid water alone has often cured *typhus*. Sponging with cold water, and drinking it copiously, is a successful course. Free wet-sheet applications almost continuous, three or four cold baths a day, with rubbing the recumbent patient, the wet girdle and injections of a pint of cold water are more effectual. At Amboy, in 1837, eighty-two passengers sick with *ship-fever*, twelve of them insensible, were carried in the blazing sun to temporary canvas-roofed shanties, in which they were drenched by a heavy shower, and every one recovered. In general it takes two weeks to cure typhus; it may require many months.

Putrid fever.—Its attack is sudden and progress rapid. Enjoin perfect quiet, free air, tepid and then cool injections. In most cases, the frequent wet-sheet is called for; but hot bottles to the feet and cold compresses to the head must usually attend them. In many cases, wet towels to the abdomen must suffice, with frequent cool or cold sponging of the whole body.

Remittent fever has but one daily exacerbation. It has much bilious disturbance, and prevails among miasms. The nervous and putrid forms are like those of typhus; putres-

cency and exhaustion marking the putrid. Many cases of both slowly assume their distinct type.

Fever and ague has a violent paroxysm, a regular succession of cold, hot, and sweating stages, and a complete intermission; chill fever and dumb ague are disguised forms. Great heat and severe drought after rains causes the greatest malaria; then avoid exposure before breakfast and after tea. Fire seems a safeguard. A saturated soil is aguish. Woods should be avoided, but a screen of them is a great protection from a source of miasms. The bowels should be well cleansed and the stomach rinsed for nausea or bad taste. The wet-sheet or immersion in the hot stage; and for headache, the pouring bath. A hot bath and the cold dripping-sheet or shower will mitigate the next paroxysm. Keep on constantly the abdominal bandage. In the cold stage, after the wet-pack, rub in the cold shallow-bath five or ten minutes, and in a half hour reapply the pack; though a constant rubbing in a cool half-bath (the head wet) is proper. It is best begun before the chill, and continued through it. A large draught of *warm* water some time before the chill, is good. By cooling in the hot stage we prevent the

sweating stage. Give tonic treatment on the well day. Warm bathing is not hurtful. Fasting is most helpful in ague. Or in the cold stage, rub in the wet-sheet through the paroxysm, rub in the sitz-bath, specially over the abdomen, or in a mild half-bath; in the hot, the wet-pack, often changed, the cold half-bath or affusions; in the sweating, the tepid half-bath only or tub-wash. Enlarged or congested liver and spleen, dyspepsia, and an unperspirable skin can be cured only by reëstablishing the functions of the organs. The best diet is wheat-meal bread, cracked wheat mush, with a very little milk and sugar for seasoning, a very moderate quantity of the milder vegetables, and the free use of good ripe sweet apples, either baked or boiled. The crust of good bread, and hard crackers, are suitable. Water-drinking should be free, exercise moderate, as sailing and carriage-riding.

Symptomatic, (see their Idiopaths.)

Small pox has rigors, and in forty-eight hours, little lumps in the skin, on the face; and extending over the body on the third and fourth days. Little dented vesicles appear on the fifth, and the fever abates. The throat swells on the sixth. On the eighth, there is pus, the face and fauces swollen with pustules.

On the tenth and eleventh, it subsides ; and on the seventeenth, the secondary fever does also. Use water according to temperature, etc. Give no food save Indian and wheat-meal gruel, and not that unless the appetite call for it. From the second to the fourth day, be cautious in meddling with the stomach and bowels. After the heat is allayed by ablutions or packings, two cool or tepid ablutions daily will suffice. For cold feet, use hot bottles. The brain affected, apply cold wet cloths. The room should be large, well-aired, and cool. Cold cream is as good as any alleviant to the itching. The water treatment divests this disease mostly of terror. In *small pox* keep the fever in check from the beginning to the end of the disease, and the more internal and external water-soaking the better. Air the clothing often, and keep the room constantly ventilated and cool. Abstain from nourishment while the fever lasts. Buttermilk is a good food.

Cow pox. Select the virus from the fifth to the twelfth day. On the seventh or eighth day, the areola is of an inch diameter, and the vesicle is dented.

Chicken pox needs a daily wash, a sheet-pack or two if feverish, and a spare diet.

Measles.—The fever increases with the erup-

tion, and is attended with pneumonic symptoms, and usually abates in a week. The mild should be treated as inflammatory fever, and the malignant like putrid typhus fever. The eruption is often brought out, and relief given by a single bath. The wet-pack promotes the eruption and quiets the circulating and nervous systems. Sore throat should have several folds of wet linen. Cough, etc., the chest-wrapper very wet and well covered with flannel. Diarrhea should have cool injections.

Scarlet fever, when mild, requires little treatment; occasional tepid ablutions, or if there be much heat, one or two packs a day, and, for constipation, a warm injection suffice. In the severe forms be watchful. Employ water on the principles already stated. The feet must be carefully kept warm. The *throat* is the seat of danger. In the anginosi, cold wet linen cloths must be constantly applied, and well but loosely covered. In the putrid, ice-water or pounded ice should be frequently applied to the neck, and occasionally taken into the mouth. On the access of the disease, move the bowels with warm-water injections, aided by drinks of warm water or gruel. For diarrhea, employ cold enemas. Avoid disturbing the stomach and bowels during the eruptive effort.

Cold compresses should be applied to the abdomen for sickness and nausea. Restlessness and delirium require a hot foot-bath and a cold compress to the head, or, if it may be, a warm hip-bath. There is often a considerable blindness, deafness, and difficulty of respiration attending the swelled throat; at this critical moment, a leech, an emetic, cathartic, or blister either suppresses the restorative effort or produces a revulsion of the whole force of the disease to the internal mucous membrane, resulting often in inflammation, disorganization, and death. For great debility and oppression, the warm foot-bath and hot abdominal fomentations give relief. Use cold water fearlessly in the way of ablutions, pourings, wet-sheets, compresses, clysters, and drinks, and fear not.

Erysipelas has the usual symptoms of fever. The head is confused, often delirious; tongue moist and uniformly white; pulse full, frequent, and compressible. About the second or third day there is a florid portion of skin spreading with a slightly elevated margin. The color is a dull red, vanishing on pressure; it spreads unequally, and burns. The swollen lids often close the eyes. It terminates in a few days with vesicles or desquamation. There are daily exacerbations till the spreading ceases;

and then in favorable cases convalescence begins. Generally the head requires the very free application of the coldest wet cloths, or the pouring head-bath; and very frequently the feet require the warm bath. Mostly in the outset two or three wet packs a day are desirable; but when the fever is strongly typhoid, the pulse weak, the circulation low, and the heat irregular, it is better to sponge the whole surface frequently with tepid water. Tepid injections should be employed freely on the access of the disease, but not resorted to during the eruptive stage on the second or third day, unless specially indicated. This disease and scarlet fever are very prevalent where pork, sweet-cakes, and other concentrated food are plentiful. A sudden change of temperature operating on a system inflamed by gross aliment, is their usual exciting cause.

Miliary fever is distinguished by profuse fetid sweat, followed by the peculiar eruption and great early debility. Applications should be of moderate temperature. Local ones, with frequent general sponging, usually suffice. Free tepid injections are often early needed. For pain, use the compress; for suppressed discharges, warm hip and foot-baths should be used.

Plague is a putrid typhus, and should be treated accordingly.

Visceral inflammations.—The blood moves slower than in healthy parts. The treatment is as that of a general fever, adding local appliances. The regimen also is the same as for simple fevers.

After child-birth, the visits of friends must be declined for many days; they are the great source of danger. Ablution, or bathing in some form, should be practised three or four times in twenty-four hours; the water at 75°. After the first sleep, sitting up in bed is allowable. Simple wet compresses, frequently re-wet, are all the bandage required, unless for rising and moving about.

In *puerperal fever*, quell and keep unremittingly checked the febrile action. Water at 70°, applied by wrapping up in one or more wet-sheets on a straw bed, without covering, will cool effectually; and the general application is far superior to a local one, to quell local inflammation.

Phrenitis.—Supporting the head on the center of a towel, pour on a large quantity of the coldest water, and apply wet towels about the body. Keep on till he talks much or goes to sleep. For headache, depend on fasting and

water-drinking. Sitz and foot-baths, cold, with exercise, are good. Rubbing smartly over the wet-sheet, or in the tepid shallow-bath, relieves *vertigo*; but the slave of animal appetites is in peril. In most cases, the fever being high, immersion is excellent. Treble wet-sheets may be used, pounded ice, cold cloths, or the pouring bath. The warmth of the feet must be kept up. Constipation must be obviated. When preferred, tepid water may be applied to the head. Several renewals of the sheet, if single, will be daily required.

Tonsillitis is relieved by frequent tepid gargles, and by frequent washing and rubbing the throat and chest with the cold wet hand. When chronic, improve the health.

Quinsy. — The wet compress must be promptly applied around the throat, and frequently renewed. The dripping-sheet or tepid half-bath must be used, with rubbing, and a dry blanket or the wet-pack may be taken. In the malignant, ice-water should be sipped and often applied to the throat.

Laryngitis is a suppurative inflammation. Every attempt to swallow causes violent spasms, threatening instant suffocation. Iced gargles and throat-wrappers are wanted. There is constant hawking, and but slight

swelling of the tonsils. Treat as Quinsy—with ice-gargles and cold wet-cloths to the throat, and the general tepid bath or wet-sheet. Hot abdominal fomentations, or better, a full hot bath, should be used ten or fifteen minutes for a persisting sense of suffocation.

Croup.—The whole throat must be instantly enveloped in several folds of *very cold* wet cloths, and these should be very frequently changed until the respiration becomes free. Fever slight, use a full bath of 70°, and a dry pack. For much heat, use the wet-sheet pack, and renew as for fever. A membrane forming, vomit. Tepid affusion, if the child is weak; otherwise, the cold with the wet-hand friction upon the throat and chest, with the constant use of wet bandages upon these parts, is the best treatment.

Mumps.—Diet, and, for feverishness, use the wet-sheet and a wet cloth, covered with a dry one, on the part. For metastasis, the full warm bath; and on the part affected, well covered wet compresses.

Inflammations show a bright red; there is tension and heat.

Pleurisy, Pneumonia, etc.—If the general febrile symptoms precede the local, the wet-

sheet is to be resorted to, and repeated according to the degree of the superficial heat.

For pain, cough, and dyspepsia, a covered chest-wrapper should be worn and renewed six times in the twenty-four hours, and the tepid, shallow, or sitz once or twice daily. For unequal heat, low pulse, and prostration, the warm sitz and foot-bath are needed. Free tepid injections should be used. Free draughts of warm water relieve the expectoration.

In *lung fever*, drink tempered water freely, little and often, and use clysters. It is well to remain in the entire or folded wet-sheet most of the time for several days. Treat bronchitis in the same way: when slight, it is called a cold, for which a wrung-out wet-sheet is excellent. Use wet bandages or the chest-wrapper day and night; rub the throat and chest to redness with the cold wet hand frequently. Spare diet and fasting effect much. In rubbing, always use the bare hand.

Laryngitis is often caused and always continued by tobacco. Lunar caustic tends to drive it down upon the lungs. Simple diet and frequent water-gargling, with frequent washing and rubbing the throat and chest; and the stimulating throat-compress, should be used.

Whooping-cough early is to be treated as catarrh. Rubbing the chest with cold water to redness, is often of great use; cold bathing and fresh air are the best of agents. The wet-jacket, two or three thicknesses, re-wet every two hours, has marked success. From two to four ablutions daily, at 60°–70°; the shallow-bath is suitable.

Carditis.—Treatment the same as for the above.

Hepatitis.—Apply the wet girdle around the upper part of the abdomen; in all other respects, treat as for inflamed lungs. Warm enemata should be freely used.

Splenitis.—Treat as above.

Gastritis.—Apply wet cloths freely to the whole abdomen, of the easiest temperature, generally quite cold. A little ice or ice-water may be often taken. Drink freely of water at 60° or 70°. Injections are generally best tepid; but for diarrhea, cold. The entire wet-sheet pack two or three times a day, is wanted in case of much fever. Relapses are common from errors in diet.

Enteritis.—Employ freely warm injections after treating awhile as above.

Peritonitis.—Treat as above.

Nephritis.—Fever moderate, the warm hip-

bath relieves. Great and uniform heat requires the cold hip-bath and rubbing the back with ice-water. Use the hunger-cure. One of them should be often used. Other treatment as above.

Cystitis.—Use the warm hip-bath half an hour, or till relief. The cool compress should be constantly worn, and often renewed; and the warm hip-bath sometimes employed. The wet-pack and dripping-sheet, or half-bath, used warm, are indicated by general heat. For vomiting, give warm water, then cold sips. For tenesmus, warm injections, then a free one of cold. For chilliness of the feet, use the foot-bath warm.

Metritis.—Treat as cystitis.

Orchitis.—Soothe by compresses or the hip-bath. For general heat, use the wet-pack or tepid full-bath.

Arthritis.—Regular gout inflames violently and swells the small joints, after indigestion, etc. The disguised has greater debility, more dyspepsia, and less pain of the joints; the recedent transfers the affection to the head, heart, or lungs. The misplaced is an attack upon some internal organ, not always preceded by the external symptoms. Cold or very cold wet cloths should be kept on constantly during

the pain, (this produces no metastasis.) The feverishness requires the wet-pack, moderate perspiration, and the shallow tepid-bath. There should be copious water-drinking and *very strict diet*. To change the habit, use a daily pack for an hour, followed by a plunge, dripping-sheet, or half-bath; a daily tepid shallow-bath for ten minutes, with the pail-douche, a daily hip-bath at 65° for fifteen minutes, and a foot-bath at 65° , ten minutes in general. The douche, as strong as bearable, may be added two or three times a week; along the spine it must be moderate. Much exercise should be taken, and water drank freely.

Routine.—In summer, on rising, plunge and walk far. Ten A.M., pack and douche. Half-past four P.M., half-bath and pail-douche. Half-past eight P.M., sitz-bath. At either 9 A.M., $5\frac{1}{2}$ P.M., or 8 P.M., or all of them, a foot-bath may be taken. In winter, on rising, take a pack and half-bath. Ten A.M., douche. Half-past four P.M., half-bath; 7 P.M., sitz; foot-baths as above. The debilitated need the pack and dripping-sheet, tepid shallow-bath, and, when irritable, the full warm-bath and the tepid pail-douche. In painful crisis, one or two full warm or slightly hot baths are proper.

The warm sitz and cool injections check diarrhea.

Rheumatism attacks the large joints. The inflammatory is treated as inflammatory fever. The warm fomentation, or the warm douche, and then cold wet cloths or ice relieve the joints. The articular requires less general, but more persistent local treatment.

Lumbago and Sciatica, with moderate general treatment, need the hot fomentation and cold covered compress, or a warm; then a cold douche, moderate.

Chronic rheumatism.—It must be made acute, and is well driven to the extremities. Treat as gout. Keep the bowels free by injections and an opening plain diet.

The *mercurial* rheumatism requires the wet-pack and tepid half-bath once a day, or the tepid half-bath and pail-douche, and occasionally the warm-bath, followed by the pail or shower.

Indigestion, dyspepsia.—The nervous, feeble, and restless must sail, ride, and sleep at any time, and take moderate treatment; the torpid and more enduring should have stronger treatment; rise early, walk much, and practise gymnastics or manual labor. The diet should be simplified as the disease is advanced

The bowels should move at a stated time. Habit, diet, and cool or cold injections must effect it. The sitz-bath and abdominal compress are the indispensable baths. Use the sitz two or three times a day, for ten or fifteen minutes, as cold as may be without causing weakness, stiffness, or a permanent chill. The crash towel should pass around the body wet, unless it irritate and chill the back; then confine it to the front. Foot-baths are usually needed. The partial or entire wet-pack and the tepid half or shallow-bath, and the dripping sheet are useful. The plunge and douche are sometimes allowable. The hot abdominal fomentation is often serviceable. Warm-water drinking, followed by cold sips, is the remedy for sick-headache, etc.

Routine.—On rising, tepid half-bath five minutes, and pail dash; half-past ten, wet-pack and mild dash, plunge, or drip sheet; half-past four, sitz-bath at 60° ten minutes; and at seven, foot-bath at 72° five minutes. The wet girdle should be reëplied, newly wet, after each bath and at bed-time.

In protracted cases omit, for a few days, the wet bandage occasionally. Weak and relaxed or rigid and contracted abdominal muscles,

require *local manipulations*, horse-back exercise, and climbing hills.

Dyspepsia comes of continued strong nervous excitement ; also of stomach abuse. Work out doors to fatigue, daily. Retire and rise regularly early. Sleep cool and aired ; and *never oppress the stomach with food*. The rubbing wet-sheet is a good commencing bath.

In *surfeit*, luke-warm injections may be given by the gallon. Fast for a week. A swab, big as one's thumb, is a good aid to vomiting. To avoid sea-sickness, diet sparingly for days before embarking ; keep away from the ends of the vessel, and be occupied. Water-vomiting relieves ; the rubbing wet-sheet, etc., are good ; and a *heavy wet girdle, tightly applied, and re-wet often while on, should be constantly worn*. Brown-bread and fruits are the proper diet.

Liver complaint, chronic, tenacious, dark sputa, and slow pulse.

Jaundice, skin greenish brown, leaden blotches, and pitchy discharges.

Duodenitis, sickening, sinking, and gnawing at pit of the stomach, and tenderness.

Treatment. — All that of dyspepsia,—also warm-water emetics and free tepid

injections, and, after relief of symptoms, cold ones. In the "*nervous debility*" of jaundice, the half-bath is at first 85° or 90° ; then 75° or 70° ; the sitz at first 75° , and by degrees 60° . The cold half-sheet pack or the warm entire sheet-pack is also to be commenced with.

Those in the habit of chilling in the sheet-pack, after they have warmed in it, should be taken out at the height of reâction; and, when enveloping, hot bottles should be put to the feet and sometimes to the arm-pits. The temperate dripping rub-sheet is excellent for a torpid, bloodless surface. These patients *cannot endure either heat or cold*.

Duodenitis disappears as the bile becomes healthy, unless ulceration has occurred.

Tooth-ache.—Hold water in the mouth, rub the hands, wet with cold water, on the face and neck, fast, and use the foot-bath. The brush and cold water, applied till bleeding, is good. Tartar needs the brush and charcoal, perhaps a dentist. The teeth require two daily tepid washings and rubbing with flannel or a brush, a weekly soaping, and, on occasions, a picking with goose-quill or ivory. Drinks of greatly differing temperature, taken within a short space, crack the enamel. Washes and powders cleanse by eating off the surface of the teeth.

Colic. — Give copious warm-water injections, joined with frequent hip or half-baths, hot or cold, as required. When warmth fails, cold almost always answers. For heat and soreness, cold is best; for torpor, griping, and periodical pains, hot. In mild cases, the hot foment and cold compress remove the uneasiness. Thorough rubbing must attend the hip or half-bath. Drinking tempered water is beneficial. In *Ileus* inject largely and often. Apply the warm stream douche, then the cold. *Pictonum* as ileus, and the wet-pack; then the drip-sheet and dry hand rubbing.

Flatulence.—Use a hot foment and injection; then a warm abdominal dash; then a pail of cold water on the body and legs.

Surfeit requires a thorough w. w. emetic and injection, and starvation diet three days.

Constipation and constriction.—Perseveringly employ frequent tepid injections and sitz-baths, with hot fomentations and wet-packs; manipulate much the loins and abdomen, *and use the coarsest diet.*

Cholera bilious.—The average secretion of bile in man is one and a quarter pounds; only one fiftieth of which is to be found in the fæces. Early requires copious warm injections and free warm-water drinking. On exhaus-

tion, cold sips and cool injections after each motion. The cold compress should be applied to the abdomen, and very frequently changed. For severe griping, the hot hip-bath; for heat and tenderness, the cold. After cleansing, the wet-pack and pouring head-bath are good.

Spasmodic.—The nature of the disease seems to be an intensely irritated or inflammatory state of the mucous membrane of the stomach and bowels, from a surcharge of retained excrement in the blood. Early inject warm water, freely and frequently, and give frequent small draughts of cold water, or bits of ice; and apply a *cold* compress to the abdomen, well covered with dry flannel. Before collapse or much coldness of the surface, the dripping wet, then the dry sheet (much and continued friction with both) should be used.

The wet-sheet pack is good early also. Later and weaker, rub well with a cold wet towel; then with dry soft flannel or the dry hand. The injections should then be frequent, but small and *cool*. In the outset, nausea and retching call for a warm-water emetic, to be followed by sips of cold water. The cool or cold hip-bath is valuable until the collapse. Violent spasm calls for vigorous friction by two or three stout, active attendants, who

should work vigorously with alternate wet and dry rubbing.

In one case, the patient had water poured on him in a hip-bath, and rubbing till chilly, at intervals for six hours, when the disease yielded to sleep, followed only by slight fever. After each repetition of the bath, its effect is more palpable and more prolonged, until at length, through the agency of the *imbibed oxygen*, the system is restored to its wonted power.

The vomiting, purging, and cramps subsided on the first application of water, and seldom reappeared after the third or fourth. Pretty free water-drinking was also useful.

In Persia, the treatment commences from the first symptoms. The patients are undressed wherever taken, and cold affusion applied. The extremities, the trunk, and particularly the chest and the shoulders, are rubbed and shampooed, and the contracted limbs extended. All hasten to a person attacked, with vessels of water; and when one is tired of rubbing, another takes his place for two or three hours. The patient is then put in bed, and given some warm tea; and, if sweat appears, the danger is past. A strict regimen and daily out-door exercise for nine days is, however, enjoined.

Priessnitz had his patients rubbed all over energetically in the wet-sheet; for nausea he gave much water to vomit. After the dripping-sheet rubbing, an injection and hip-bath of cold water were used to check the diarrhea; this bath, with perpetual rubbing, was continued till relief. A wet bandage being applied, the patient was put in bed; and, on awaking, put into a cold bath again. All food and drink was taken cold during convalescence.

Dr. Shew used cold water liberally outside, but found warm water better than cool for internal use, and gave it freely to drink, and by injection, as vomiting approached.

Vigorous and long-continued friction in bed, with the addition of a powerfully-stimulating liniment, causing profuse perspiration, is reported to have proved by early use eminently successful.

Serous (that is, watery) discharges are *the* dangerous symptom, which only the above and other plans stop.

Infantile needs cool injections, the abdominal compress, and the tepid towel-bath or ablu-
tion for a feverish surface. Bloody discharges require cold injections. In protracted cases, the child should be placed once a day,

when the fever is highest, in a tepid half-bath, and the abdomen, back, chest, and extremities, well rubbed with the bare hand. Wheat-meal mush and rice, seasoned with a little sugar or *milk*, is the diet.

Sea-sickness helps people on the hunger-cure principle.

In a bilious attack, fast one, two, or three days, and drink plenty of pure, soft water. Use water appliances as much as you please. With a temperate vegetable diet, and observance of hygienic rules, the trouble would be a novelty.

In *Jaundice* use the *wet-pack* and *hunger-cure*, the other hygienic means also aid. In the case of infants, wrap a wet towel around for a half-hour or hour two or three times a day, and bathe it some; let the mother so live that her milk may be pure.

Diarrhea is relieved by a free use of good and perfectly ripened fruits; and those articles which are best in health or costiveness, are best for it. A correct vegetarian diet, with wet-packs, rubbing-sheets, shallow-baths, and the wet-girdle, cure the chronic kind. It for the most part requires the treatment of dyspepsia. For the feculent, fast: bilious is relieved by two

free tepid injections; all the other forms are treated on general principles.

Concretions.—Inject warm water copiously, and use a plain fruit and farinaceous diet.

Worms will stay till vigorous functional action and pure secretions exist. To dislodge them, inject occasionally a copious supply of cold water. The crusts of good wheat-meal bread and good ripe fresh apples are a perfect vermifuge diet. Dry toast and cracked wheat will do.

Hemorrhoids require the same curative management as dyspepsia. The inflamed tumors are relieved by very frequent cold sitz-baths from 60° to 50°, with small injections of very cold water, specially in the morning.

For *prolapsed* bowel keep mostly the horizontal position, and apply cold cloths to the fundament. Irritable piles, causing severe diarrhea, the wet pack two or three times a day, and the wet abdominal bandage very often changed, are the best resource. The diet must be well guarded, mostly as for dyspepsia, but sometimes very soft.

Fluxes, Sneezing, Coryza, and Catarrh, require the rubbing wet-sheet, frequent sniffing of tepid water, wet hand frictions of the face

and throat, and regulating the bowels, and early a scant diet.

Catarrh, Influenza, etc.—The first is a high, the second a low, fever. In the first, the wet pack repeated is the leading measure; in the other, the tepid ablution; and, if chilly, the dry blanket with the chest-wrapper well covered for the lungs, warm hip and foot-baths for the abdomen. Tepid injections generally, and sometimes an emetic are needed.

Choleras are caused by impure air, heat, and bad aliments. Too much of sugar and sweet-meats is used. Fly to the country. To prevent bowel disease, be regular in meals, sleeping, etc., bathe daily, exercise moderately, be calm and every way cleanly. In this and all bowel complaints, *keep the bowels and head cool, the extremities warm*; this, well done, abates the pain, the cold hip-bath answering an admirable purpose. Promptitude and watchfulness are here of the value of life. The wet girdle, often re-wet, should be continued till thoroughly restored. Anal soreness is eased by a cold wet diaper. Drink to satisfaction. Good apples and other *ripe* fruit may be used fresh, when any food is admissible; their juice is salutary; exercise little and often; rid-

ing is best. Boiled rice and sour milk is a safe diet.

Costiveness has present relief from copious warm injections, and cold pouring upon the bowels.

The hunger-cure, with tonic-baths, removes the *piles*. Too much laxative food increases them. Half a pint of cold water injected, and retained thrice a day, is useful. After healing a *fistula*, the vitals are apt to ulcerate; therefore first *prepare thoroughly*.

Prolapsus is cured by a strict diet of rye or Graham mush and molasses, or brown sugar. The evacuations should be passed while in the standing posture to prevent straining. Some good fruit is allowable.

Stricture of the rectum requires the hunger-cure or dieting, the wet girdle, sitz, clysters, and moderation in exercise.

Dysentery.—For violent general fever, the wet-pack or half-bath should be employed. Frequent small draughts of cold water should be taken, and an often-changed abdominal compress applied. Use early one or two copious tepid injections, afterward cool, and sometimes, if pleasant, ice-water. Hip-baths, cold inversely as the abdomen is hot, are proper every two or three hours. It rarely fails in

children to yield soon to two or three daily tepid washings of the surface, the constant compress to the abdomen, plenty of cold drink, and early tepid injections. Eat nothing till fever and inflammation are both sensibly abated, and then the blandest articles, as rice or wheat-meal, mush, gruel, and toasted bread. In case of ulceration, eat only rice and arrow-root.

CACHEXIES.

Consumption is caused by descent, in-and-in breeding, drunkenness, mercury, (as known by irritable circulation, extreme pallor and emaciation, acute and rapid hectic ending in consumption,) and sexual abuse. Keep down the heat, and exercise in the open air, avoiding sudden changes. The cough is palliated by washing the whole surface with pure water, by walking or riding, by omitting supper, and by frequent sips of water. The same means, the wet-hand frictions, and pure air allay the dyspnea. Pure water and very simple diet improve the expectoration. Two or three washings with tempered water, with wet friction, effectually check the night-sweats. Keep down the heat by freely washing the face, hands, and arms. The principal assistant in the

cure is riding on horseback every day, which is best on a long journey.

Every measure invigorating the system, expanding the lungs, and diffusing the blood over the surface, must be perseveringly employed. Much mild out-door exercise in mountainous regions is important. They must, asleep or awake, always be kept straight. It is important to repeat frequently in the day the practice of taking slow, deep, and full inspirations. The diet should be rigidly plain and abstemious. A single wrong meal often destroys the gain of a month's faithful treatment. Consumptives often have no other evidence of what agrees or disagrees with the stomach than the better or worse character of the pulmonary symptoms. The diet should be more bland and watery, and less nutritious, than in most dyspeptic cases. Coarse bread, wheat-en grits, the mildest vegetables, and best fruits suffice. In many cases the patient has evidently profited by a very light breakfast, a moderated dinner, and no supper. Unless emaciated and dyspeptic, from five to ten tumblers of water are beneficial.

The cold-bath is well borne, but its duration must be short. Warmth being natural, the cold wet-pack is proper for an hour, followed

by the tepid shallow-bath five minutes. The half-bath at 72° , five to ten minutes; the hip-bath at 65° , fifteen minutes, with the constant chest-wrapper, suit most. The walking foot-bath is often useful. A moderate douche sometimes, and the spray always, are early useful. Later, the dry-pack shortens and mitigates the chills. Night-sweats are checked or palliated by the rubbing wet-sheet at bed-time, or by tepid sponging. Two or three wet rubs a day assist, also sleeping cool. Extensive disease in the lungs gives sensitiveness to cold, and the water must be mild. Tepid clysters, a mild sitz, and the constant wet-girdle palliate looseness. Very little bathing is essential. One or two sponge-baths or towel-washings, one or two sitz-baths, the chest-wrapper or abdominal girdle, will answer, with keeping much in the open air, almost constant moderate exercise, and the smallest sustaining quantity of coarse bland food.

Marasmus.—Deficient circulation in the capillary system is the trouble. Use every hygienic means to invigorate. The dripping wet-sheet or towel-wash, and the half-bath, followed by much friction over the dry-sheet, are mostly sufficient. They should be as cold as will allow prompt reaction. Begin at 80° , and

gradually reduce. The very feeble may commence with one daily bath, and they should walk or *ride* frequently in the open air. The dry diet is mostly the best.

Elephantiasis.—Cleanliness is the remedy.

Hemorrhage, from impaired blood or relaxed vessels. Locally apply the coldest water or ice. In nose-bleed, sniff tepid water, and apply cold to the nape, the head, the hands and feet. In the lungs and stomach, cold sips or bits of ice, and the coldest compresses over the stomach and chest. In hematemesis, the cold hip-bath is invaluable. Treat bowel hemorrhage in the same way, without the cold injections. Warm drink is best in both. In the urethra and rectum, cold injections and cold hip-baths. Avoid all excitement of mind or body. For heat, use the dripping-sheet or ablution. Rub cool extremities with cold wet cloths, and then dry flannels. In uterine, apply the cold wet-sheet four-double, the cold sitz, and very cold drink.

Scurvy is caused by stale, salt, or flesh food, and foul air and filthiness; either or all of them. The blood is putrescent. The tepid half-bath and dripping-sheet or towel-wash are the preferable water appliances; frequent sips of very cold water and occasional cold water

enemata should be taken. Brown-bread, wheaten grits, mealy potatoes, and good apples are the best of anti-scorbutics.

Plethora.—Work smart in the field, beginning gently. Food, coarse, plain, and scanty, and two general cold washings a day, and towel or brush-rubbing.

Scrofula, frail, delicate, infirm, and lax. Whatever deteriorates the general health, develops scrofula. Bad food, drink, and air, darkness, sitting, and drugs originate it. The best restoratives are pure fresh air and clear sunshine. The food must be the best fruits, vegetables, and farinaceous preparations in plenty. Have free water-drinking in the morning, two full baths a day, wet compresses to the tumors, and the wet-pack with the dripping-sheet or half-bath daily, when feverish, and once or twice a week otherwise; an occasional mild dash, and, for turgescence, a short wrapping in the dry blanket.

Cancer.—Treat as scrofula, though here the hunger-cure is the leading remedial measure. Brown bread, parched corn, or other grain, some good fruit, and plenty of soft water is the proper diet. Abundance of fresh and pure out-door air is indispensable; and two or three general baths may be employed

daily. Occasional wet-sheet packings, and, for the torpid, dry, followed by the dripping-sheet and friction, deterge and rouse the skin. Actual freezing the part occasionally, by mixtures promises well.

Melanosis.—Treat as scurvy and scrofula.

Catacausis.—Unquenchable by water.

THE EYE

should be regularly used, with frequent resting. Sudden transitions of light, and looking askew should be avoided. Observing objects at various distances is useful.

Sore Eyes, Acute Ophthalmia.—Keep the eye shaded. Apply linen cloths, wet in pure water, and often wet the head. For feverishness, use the wet-pack once or twice a day for an hour, with a cold ablution. Use free tepid injections. For cold feet, employ warm foot-baths. Diet on gruel or nothing.

Chronic is often the sequel of the above, and often comes of bad food and air, riot, bad habits, and drugs. Improve the health. Use a daily rubbing-sheet, and hip-bath, and walking foot-baths. Frequently bathe the eyes, at first in tepid water, afterward in as cold as comfortable.

Purulent.—For heat, the wet-pack two or three times a day, and warm washing. In case of chilliness, wring the sheet from warm water. The eye-wash should never be very cold.

Infantile, as above, using the tepid bath, instead of the pack.

Granular lids.—A daily rub-sheet and douche, and the local use of ice-water or ice, with a strictly abstemious regimen.

Opacities, as above; also a strong douche and walking foot-baths.

Pterygium is cut out with no pain.

Staphyloma.—Be abstinent.

Amaurosis, confirmed, is incurable; a disease of exhaustion. The rubbing wet-sheet, the pack with the shallow-bath or the plunge, sitz, and foot-baths, and occasional douches. Something of the hunger-cure in this and all the foregoing is wholly profitable.

Strabismus is cured by an easy and safe operation.

Psorophthalmia, as chronic ophthalmia.

Stye.—Frequent mild washing helps.

Ptosis.—Frequent cold bathing, some head-baths, and gentle manipulations over the eye.

Fistula, as ptosis; a rigid diet. The canal may have to be probed or tubed.

Asthenopia requires the full invigorating plan.

Myopia.—Flattening the eyeball by pressing gently with the fingers across it, from within outwardly, corrects.

Presbyopia, manipulate from without toward the nose. Press the fingers gently from the outer angle of the eye inward, and rather around than across the globe.

Ecchymosis.—Bathe them freely in the coldest water.

Substances in the eye.—Lower lid, remove with moist paper. Upper, place a knitting-needle just under the edge of the orbit, and let the other hand pull the lid by its lashes over it. Apply water, tepid or warm, often during the pain, then cool and cold.

Burst eye must not be touched. Place the patient at once in bed, darken the room, apply cool compresses, and the sight may be saved.

E A R .

External Otitis.—Fast, apply cold wet cloths, syringe with cool water, and use one, two, or three general baths a day.

Internal.—Speedy relief alone prevents ulceration. Add to the treatment of the

above the pouring of cold water over the sides and back of the head for some minutes several times a day, the wet-sheet, and tepid injections. The tube open, air will pass on, expiring with the mouth and nose closed.

- *Chronic.*—Otorrhea requires a coarse, plain, farinaceous, and frugiverous diet, and persistence in bathing. The rubbing wet-sheet, with frequent hip and foot-baths, answers well; and, in most cases, the wet-pack should be occasionally used. Health improved, use warm, then cool injections.

Deafness.—From colds, use persevering tepid injections; from hardened wax, tepid syringing, but mainly a plain, unconcentrated diet; and, for inflammatory symptoms, head-baths; from excrescences, subdue inflammation and extirpate the tumors by cutting or caustic, and use, a good while, warm and cold injections; from abscess, treat as acute inflammation; from caries, use a tube while healing; from altered membrana tympani, derivative hip and half-baths thirty or forty minutes; from diseased Eustachian tube, attend to the general and local health, and use cold-water gargles; from extravasation, cold compresses, gargles, injections, and general baths; nervous, restore the health; dumb, congenital is incurable.

ble—from early disease, not always ; senile, a hygienic life.

Otalgia.—A day's fasting, syringing with warm water, and tepid foot-baths, sometimes a vapor-bath or wet-sheet pack ; an emetic or free injections may be needed.

Foreign bodies remove with care and skill.

Insects may be destroyed with oil of almonds, green tea, or tobacco.

Erythemas.—Redness, tumidness, and fullness of the skin, disappearing on pressure. 1. The edematous has a bright scarlet color, spreads widely and deeply. 2. The erysipelatos is of a deeper red, superficial, with a determinate edge ; in some cases it extends beneath the skin. 3. Gangrenous has a superficial, dusky red color, and attacks chiefly the extremities. 4. Vesicular is pale red, with acrid vesicles. 5. Anatomical commences with a constitutional febrile disturbance ; local symptoms appear at the axilla.

Snake poison, local and general symptoms both go rapidly.

Stings and bites of wasps and fleas, irritation. Use a stream of the coldest water.

For *Erythema* the first, use local wet compresses, gentle friction, and the general tepid or cool ablution, or half-bath ; well-adjusted

wet bandages help in great distention. The second demands a strict and rigidly simple dietary; the more fever, the more general bathing and the more frequent the wet-pack. The others need more particular local treatment. Regulate the general applications by the superficial heat and the sensations of the patient; but the local ones should be very cold, though, if painful, short and frequent.

Chilblain requires a daily general bath or ablution and frequent local bathing in the coldest water.

Nettle-rash.—Give an emetic daily, tepid injections, and a dripping-sheet or half-bath, with abstemious diet.

Thrush and *canker* do not require, on the part of a mother, the weaning of her child, but every means of improving her tone and vigor; as wet-packs, ablutions, the wet-girdle and clysters, pure soft water, with proper air, exercise, and diet. Use the abdominal bandage, the wet-pack once or twice a week, cool injections daily when diarrhea attends, moderate drinking of cold water, a daily ablution, half-bath, or dripping-sheet, and a bland vegetable diet, with milk. Vesicular fever symptomatic of visceral inflammation, treat as nettle-rash; frequent tepid sponging often suffices.

Yaws.—One or two moderate general baths, and a rigid vegetable diet.

Spasmodic convulsions.—Have cool air and cold water. Rub actively in the half-bath, and employ tepid injections. Live on coarse home-made bread, milk, and vegetables; and take a daily bath.

Epilepsy.—Freely apply cold water to the head, compresses to the stomach, and warm applications to the feet. But *the diet is the main thing*. The best is crusts of good brown bread, roasted potatoes, and good baked or boiled apples in moderate quantity, with little, if any, drink at meals, and an extremely light supper, or none. Shallow-baths, sitz-baths, and foot-baths should be of short duration, and frequently repeated. For torpor of the skin, rub thoroughly in the dripping-sheet, or occasionally pack.

Hysteria is preventable by a daily horse-back gallop. The bed-ridden are soon cured by a little water treatment, with plenty of out-door exercise, and *making them believe the cure certain*. They must be *made to try to stir*. Sometimes a resolute letting them alone has a happy effect. In the fit, loosen the dress, open the doors and windows, and rub all over with cold wet hands, best in a shallow-bath,

and pour cold water freely upon the head. These measures are always safe. Clysters of cold water may be used without stint, and ice-cold cloths placed upon the abdomen. A gentle nurse in hospitals will have a score to attend to if one is taken; but the resolute, giving assurance of the invariable cold affusion, is spared that task. *The most* intractable cases of it and of dyspepsia, are found among those without regular employment. Place the head over a basin, and pour water from a jug over the head and chest, till the patient becomes chilly and revives. The patient becoming very cold, stop and apply warmth to the feet. During the intervals employ the abdominal bandage, frequent hip-baths, and occasional dripping-sheets or packs, and a loosening diet.

Tremor.—Live right.

Delirium tremens.—Use the wet-pack; next best, is the tepid shallow-bath, with much rubbing, and for much feverishness, the dripping-sheet. Copious warm-water drinking and a daily tepid injection. Apply cold cloths to the head and usually give a warm foot-bath. Two or three general baths are proper daily; if not, irritability is calmed by wet towels to the chest, abdomen, and thighs, often renewed,

with free cold injections, and much drinking of cold water.

Shaking palsy is simple nervous debility. A daily ablution or thorough rubbing in the drip-sheet early in the morning, one or two shallow-baths in the course of the day, and active friction with the dry sheet or hand. Cold water should be drank freely, and cold injections used daily. The food should be unconcentrated and very bland.

Chorea.—Treat as above.

Raphania.—Moderate cold-water drinking, free cold-water injections, one or two daily wet-packs for feverishness, and at other times frequent tepid ablutions.

Barbiers.—Tonic treatment.

Cough.—Cold water should be freely drank, diet plain and abstemious, one or two daily ablutions, with active friction or exercise; for feverishness the pack should produce some sweating; and for an inflammatory state or soreness, the chest-wrapper should be applied. In bad hooping-cough give a warm-water emetic, and daily a tepid half-bath and foot-bath.

Dyspnea.—Organic, improve the health; symptomatic, treat as cough.

Asthma.—The rubbing wet-sheet, the pack,

and douche with the chest-wrapper, are the main reliance; the last for the dyspeptic is exchanged for the abdominal bandage, and the tepid shallow-bath added.

Routine.—Dripping-sheet five minutes and dash three minutes on rising; at half-past ten, wet-pack three fourths or an hour, and shallow-bath at 72° ten minutes; at four, sitz at 65° from fifteen to twenty minutes, or shallow foot-bath at 65° from five to ten minutes. If pleasant, a dripping-sheet may be used at bedtime. When needed, use tepid or cool injections. In general, take early in the day six or eight tumblers of water. In all cases, the diet must be simple, and when there is liver or spleen disease or dyspepsia, a rigidly abstemious *dry diet*. In the paroxysm, admit freely cold air and give a warm-water emetic and a warm half or hip-bath, or apply a hot fomentation to the chest and abdomen.

Spasmodic croup.—Use wet cloths to the throat, the tepid bath and dry-pack; or a dry-pack, free warm-water drinking, and a tepid injection.

Incubus.—Take a light supper and sleep on a hard bed, with high pillows, and *on the side*. Let the food be moderate and plain, keep the bowels free, and take a daily bath.

Bronchitis.—Treat mainly as consumption. By degrees accustom the patient to the contact of cold air and water. Commence with the sponge, towel, or rubbing-sheet, with active friction. After a few days, apply the chest-wrapper and use half, hip, and foot-baths as often and as cold as may be, without disagreeable or prolonged chilliness, dyspnea, or irregular pulse. Heat being at or above natural, use one, two, or three packs a week.

For shortness of breath, walk regularly and perseveringly in the open air till slightly fatigued. Most require from six to twelve months of careful treatment; some, one or two years.

Angina pectoris.—Give, in the paroxysm, a warm-water emetic, a dripping-sheet, or douche, or the pouring head-bath. To cure, give a well-regulated diet and a daily cold bath.

Pleuralgia, acute and chronic. The *stitch* is relieved by a tight bandage, hot foment, or warm dash.

Hydrophobia.—Rabid dogs have been cured by persistent cold douching. Prevention; after excision, the ligature, cauterization, suction, and refrigeration, use a thorough course of wet-sheet packings.

Acrotismus.—Apply thorough friction with

cold wet cloths, then dry flannel or the hand. For cure restore the health.

In *Palsy*, make the treatment powerful *only* by repeating light applications frequently ; as by wet rubbings and the head-bath. In *Tetanus*, *rub powerfully in the shallow-bath till the spasm is quelled*. Cold affusion and the douche are proper ; also pack and sitz. Free and frequent injections aid. This failing, a lobelia or tobacco enema is allowable. For *Neuralgia*, use the hunger-cure, journeying, or cold-baths, and long-continued cold packs. For *Epilepsy*, tonic treatment, the hunger-cure, all but vegetables and the farinacea, are the plan. In *convulsions*, the cold plunge and affusions avail ; tempered somewhat for the weak. The inexperienced may employ tepid water or partial applications, with cold to the head, where there is heat and a rush of blood.

Tetanus.—From a wound, incise freely to its bottom and pour in boiling spirits turpentine. The wet-sheet envelope. Keep up a comfortable glow and a moist state of the skin for hours ; when too warm or dry, re-wet the sheet at from 65° to 75° without removing it, and continue this course for days. A wound being the cause, keep on it several folds of wet cloths as cold as can be borne, changing often.

Cold water should be drank and injected freely.

Trismus treat as above ; and add the tepid shallow-bath, active rubbing, and warm-water injections.

Cramp is relieved by a douche, hot foment, a warm hip and foot-bath ; the stomach affected, press it. The diathesis is removed by daily bathing, plain, unconcentrated food, and regular active exercise.

Spinal disease.—The small of the back, being the center of the muscular system, is the strong or weak point with every one. Remove all extra clothing and all supports. Exercise out of doors often. Practice such gymnastics as exert the debilitated muscles moderately and regularly. Let the bed be a hair mattress, or better, one of oat-straw. The posture should be easy, nearly horizontal. Diet ; brown bread and baked apples, wheaten grits with sugar, and green apples, wheat-meal or Indian cakes and milk, roasted potatoes, good bread crusts, Graham crackers, and common vegetables and fruits. Cold water rather freely taken early in the day ; and, for sluggish bowels, a daily injection. The bathing should be tonic. The dripping-sheet, and active and long rubbing, or the tepid shallow-bath and

pail-dash with hand-rubbing, or the towel-wash daily. The dash to the back moderately once or twice a day, two to five minutes. The hip-bath is highly serviceable; also the air-bath, with shampooing.

Muscular stiff-joint.—Apply the dash, compress, and prolonged friction.

Wry-neck.—Ditto.

Hiccup.—A cold drink, the foot-bath, cold-stomach compress. For bile, etc., warm-water drinking, the cold girdle, and injection.

Sneezing.—Sniff cold water gently, use derivative baths, and wet-pack the face.

Palpitation.—Find and treat the primary malady.

Nictitation.—Frequent cold bathing and gentle manipulation.

Subsultus requires a daily bath, coarse, opening food, and cool injections.

Stretching.—Occupation.

Asphyxia.—Inflate the lungs with a tube and common bellows, excluding bystanders; press the chest suddenly and forcibly, downward and backward for an instant, and repeat perseveringly; and having the nozzle of a bellows introduced well upon the base of the tongue, the mouth and nose closed with a handkerchief, let an attendant press upon Adam's

apple while air is introduced. Continue to blow and to press out the air several hours. The operator's breath is a partial substitute. Cold dashing in the face and over the head and body, and active friction, cold injections. In lightning-stroke, dashing on cold water, and the prolonged pouring-bath are the most effective. A frozen limb requires the coldest water or snow; in severe chill, rub with flannel on the hand.

Ecstasy.—Out-door exercise, lively company, occupation, a daily bath, and plain food.

Catalepsy as above.

Lethargy.—Ditto, with more recreation, and the pouring head-bath.

Apoplexy.—Furnish cool air, expose the neck and chest, and let the position be easy, and nearly upright. Use the pouring head-bath, put warm water to the feet, and occasionally hot fomentations to the abdomen. The fit persisting, use the cold stream from one fourth to one half hour several times a day. The cold wet girdle should be on, except during the hot fomentations of ten or fifteen minutes every two or three hours. Rub the feet with a cold wet cloth, then with the dry hand. Put nothing in the mouth till relief, and then a little cold water.

Palsy, with apoplectic symptoms, treat as above. Short baths as cold as comfortable. In hemiplegia the ablution or dripping-sheet is proper. The wet-pack and plunge is preferable when there is much vigor. Where the lower part of the body, or the lower extremities is palsied, the shallow-bath is the best, and it is aided by hip and foot-baths. In all cases thorough friction should follow the use of water. A moderate dash on the spine and on the part affected, in most cases is of benefit. For coldness or torpor use the half-sheet pack. Paralyzed extremities should constantly wear frequently renewed wet-compresses well covered. Cool injections daily. Diet and regimen as for dyspepsia.

Turgescence of the liver.—The hunger-cure moderately but perseveringly employed, and a moderate dash on the upper portion of the back and shoulder-blades aids absorption. Either or both the wet-pack and shallow-bath, also the abdominal compress and the warm stream dash, followed by the cold, help the system.

Of the spleen.—As above; also a frequent dash to the spine and left hypochondriac region.

Of the pancreas, do.

Of the mesentery, do.

Of the intestines, do.; with frequent sips of ice-water, cold compresses to the stomach, and free tepid injections.

Of the omentum, as enlarged liver.

Complicated, do.

DROPSICAL.

In *Dropsy*, punctures are unsafe below the knee. The radical cure depends upon restoring the organs particularly affected to a healthy state.

Cellular.—Let the baths be short, but of quite cold water, followed long by brisk hand-friction, the moderate douche, with thorough rubbing in the dry blanket, the wet-pack with warm bottles to the feet, and perhaps to the arm-pits. The diet should be mostly dry and unconcentrated. Water should be drank only for thirst. Use tepid injections freely. The warm dash or the spray, with the pail dash, for pain or tenderness, or scanty or difficult urination.

Dropsy of the head, as above, with half, hip, and foot-baths and the wet girdle.

Of the chest, use the derivative baths and treatment as above.

Of the abdomen, (encysted,) use packing, dash, and foot-baths for the general health, before tapping. Peritoneal requires the wet bandage to be well covered and renewed five or six times a day, and a free use of injections.

Ovarian, treat as above.

Fallopian, do.

Uterine, do.

Scrotal, very cold sitz-baths and the ascending dash, each several times a day, and ice-water compresses, with the above general treatment.

Inflation.—Treatment as for dropsy. If from poison, use a moderately sweating wet-sheet, sips of ice-water, and copious injections; from wounds in the lungs, it may be best to puncture; use the dripping-sheet with hand-friction.

Abdominal and uterine, copious cold injections, the spray, and the ascending dash.

INFLAMMATORY.

Phlegmasia dolens.—Treat as an inflammation, with the wet-pack, and frequent ablutions, and constant cold wet-compresses. Cold water freely drank, cool injections used, and the fever diet employed.

Elephantiasis requires the pack and dripping sheet, the leg-bath, leg-dash, and simple food.

MISOSSIFICATION.

Rickets—One or two daily ablutions, pure air, plenty of sunshine, *good* milk, abundant cold-water drinking, and brown bread, wheaten grits, potatoes, and good fruits.

Cretinism, as above.

Mollities, do.

Fragilitas, do.

Ostheuxy, improve the health.

Exostosis, surgical.

SENSATION DISEASED.

Headache, in most cases, is relieved by putting the feet in warm water, and cold wet cloths to the head, or hot fomentations to the abdomen. The warm hip-bath, the wet-pack, warm-water-drinking, and the pouring head-bath (according to the cause) are efficacious.

From absence of the usual stimulants.—Keep quiet; take frequent warm foot and cold head-baths for some days.

Neuralgia.—Begin with gentle bathing in tepid water, and with hand-rubbing. Cool the water as far as may be. Local baths, half, hip

and foot, should be followed by half or full packs, the dripping-sheet, plunge, and dash as borne. For sub-paralysis, use the warm and cold dash.

Sleeplessness.—A hip-bath or dripping-sheet at bed-time quiets the mind; the warm foot-bath, wet girdle, out-door walking, or a cold-room air-bath, the body.

Restlessness.—Remove the causes.

Antipathy.—Accustom the patient to the object.

Vertigo from plethora calls for an emetic. Use plain coarse food and injections, and one or two daily ablutions; for debility, etc., quiet and sleep are indispensable.

Syncope.—Free cold air, cold water in the face, and sometimes over the head, with a cold compress to the stomach, recumbence and warmth to the feet, and soon a cold draught.

Morbid sight.—Use gentle manipulation and cold immersion; avoid grease, salt, and all earthy and saline matters.

Morbid hearing.—Improve the health; frequently syringe the ear with tepid, then cool water, and sometimes employ the head-bath, and slightly douche the spine.

Morbid smell.—Use the head-bath, sniffs of cold water, and a rigid diet.

Morbid taste.—Often hold cold water in the mouth, and eat nothing but a simple, dry, farinaceous diet, of which unleavened brown bread is best.

Morbid touch.—Use a daily cold bath, and regulate all the habits.

MENTAL DISEASES.

Madness needs a bland simple diet, and a plan of derivative and soothing bathing. The feet must be kept warm, the head cool, and all shocks avoided. The tepid shallow hip and foot-baths are the chief. The wet-pack and dripping-sheet are useful. Diet, vegetarian. Subjecting the insane to an immersion in a bath at 84° for several hours, and to cold douching on the head at a height of five feet, continuing them twelve or more hours, suspending the douche when tranquil, has succeeded well.

In *Hypo*, use several shower-baths daily, the wet bandage, coarse farinaceous food, and fruits, with, perhaps, a little meat at dinner, and water an hour before meals, and several glasses on rising.

Ungovernable passion, as above; and regular steady employment.

Illusion.—Attend to the bodily health, and have *sensible* company, a light regular business, and sound practical books and newspapers. Displacement of the transverse colon and prolapse of the fundament often cause it, and displacements of the uterus still oftener.

Reverie, as above.

Sleep-walking, etc.—Find and remove the cause.

Fatuity.—The dripping sheet, douche, shower, plunge, spray, or fountain, with out-door exercise or regular occupation. Use vegetable food only.

DISEASES OF THE VOCAL AVENUES.

Coryza requires a few packs, a rigid diet, and a uniform mild room a few days. The chronic and the nasal ulcer require the pack occasionally, cold sniffs, the hip-bath, and one or two foot-baths daily, and much out-door exercise, avoiding dampness and chilliness.

Polypus.—Remove the soft with the ligature or forceps; the hard requires a skillful surgeon.

Ronchus.—Exercise and diet.

Aphonia.—In that from debility, the frequent wet-compress, hip-baths, and manipula-

tions, vigorous exercise, and vocal gymnastics help.

Dissonance.—Be quiet, open the mouth, speak slow, make each sound distinct, first slowly, then quick, halloa and ha! ha! ha! rapidly, and speechify Demosthenically.

Stammering, as above; and taking deep, full, and prolonged inspirations and expirations, count 1, 2, 3, 4, aloud and plain.

SEXUAL.

Soundness and purity in the reproductive system are indispensable to health and vigor in the offspring.

Mis-menstruation, obstructed and suppressed, excessive or menorrhagic, vicarious, imperfect, or chlorosis, and irregular cessation.—Almost every form, state, and stage of these troubles is curable by a thorough application of our whole system. The majority of cases, however, require several months, and many of them two or three years' treatment, to complete the cure. But those requiring a long treatment can remain mostly at home and be engaged in household labors. In menorrhagia, the hip-baths should be 55°–45°; for all other forms, have a morning full bath, as the plunge,

dripping-sheet, or towel-wash, two or three hip-baths daily, one or two foot-baths, the abdominal bandage, frequent and varied out-door exercise, and a plain, solid, rather dry and unstimulating dietary. The water should be as cold as consists with prompt reaction and warmth; mostly the baths should be frequent and short. Invigorating exercise should precede hip and foot-baths; and the walking foot-bath is the best kind. Use a great variety of exercise and of light occupations. If plethoric, use from one to three wet-packs a week, for a month or two; if atonic, the tepid shallow-bath and prolonged rubbing.

For *irregular cessation*, the treatment should be mild. In this and menorrhagia, the exercise should be very moderate. Vaginal injections are useful in all cases of relaxation, hemorrhage, or leucorrhea; in all others, apply the horizontal, douche, or spray to the hips, abdomen, and loins. Apply warmth to relieve pain, then resume treatment. The warm foot, sitz, or full bath, hot foment, or the hot bath, followed by the dry-pack, may be required. To remain dry-packed or closely covered in bed two or three days, is sometimes the only avoidance of agony. Free warm-water drinking aids in these periods. Vigorous patients

need no change of treatment during the menstrual period; but the emaciated, with torpid livers and tendency to brain congestion, should have merely a tepid wash daily, and soothing appliances. Those of full habit and breath should drink from four to eight tumblers a day; the thin and feeble, two or three. Brown bread, unfermented bread and cake, cracked wheat, or rye-meal mush, with a portion of good vegetables and fruits, is the diet; omitting not only flesh, but eggs, butter, and even milk.

Leucorrhœa.—Treat as above, and specially use hip-baths and vaginal injections suited to the condition of the patient. Always commence with water at 80° or 90°, gradually reducing to 60° or 50°. The vaginal syringe, in severe cases, should be employed two, three, or four times a day. For hemorrhage, very cold water should be thrown up the vagina, and cold wet cloths laid over the abdomen. The cure depends on restoring vigor to the constitution.

Spermorrhœa.—One or two daily cold baths, active out-door occupation, and a vegetable and fruit diet ordinarily suffice. But the worn-out must *persevere* strictly in the laws of hygiene, and *outgrow* the ruin of their ways.

There must be perpetual continence of thought. These need but a daily towel-wash, one or two tepid or cool hip-baths, and a rigidly simple and scanty vegetable diet; using little, if any, of even sugar, milk, or salt. The supper should be light and dry, and the sleeping posture on the side.

Venereal disease never affects the constitution till an ulcer forms and is absorbed. Burn out the ulcer with aqua-fortis or lunar caustic; much spread or deep, use one part of the eater and six of water repeatedly, then treat as other sores. Temper the sitz-bath as is most agreeable to the patient.

Lust.—General cold baths, copious water-drinking, active occupation, relaxing hip-baths, and a simple vegetable diet.

GENITAL DISPLACEMENTS.

Prolapsus, trouble in the small of the back, and in walking, and obstinate leucorrhœa. Prolapsus, where really existing, is sometimes cured in a single summer by a correct hygienic course; and *constitutional restoration* is the only safe and reliable means. Exercise, cautiously used, is invaluable. In most cases the physician's care is required.

Retroversion.—Pain in evacuating either the bowels or bladder, enlargement of the womb, and loss of locomotion, with abdominal tension and tenderness.

Anteversion as prolapse, (rare.) Diet. Brown bread, boiled potatoes, and baked apples. A daily tepid dripping-sheet or half-bath, an evening foot-bath, and two or three vaginal injections daily of cold water, and, when bearable, occasional packs, is the bathing course. Exercise as able; but in bad cases there can be none till preparation and replacement. The ordinary external means failing, mechanical must be used. The abdominal muscles must be strengthened by active yet gentle manipulations, and the relaxed vagina constricted by injections of a little very cold water. Walking and other exercise should immediately commence and increase with the strength. An instrument is sometimes needed, and, in case of extreme laxity, a rubber-capped sponge is awhile wanted. Restore promptly an *inversion*; and remove excrescences by ligature.

Amenorrhea in ninety-five of one hundred cases, requires only active out-door exercise and proper bathing and diet, says Halstead, motorpathist.

Statuminating vitalization, (the patient bending forward, *the abdomen is well sham-pooed*,) is the main part of motorpathic treatment personally given; and not communicable clearly without a course of personal instruction. The treatment aims to produce a vigorous action in every organ and gland in every part and point of the body. Every agent is chosen according to its ability to produce, increase, or continue motion. *Stat. vit.* stands first; diet, bathing, magnetism, dry-cupping, exercise, and medication are aids. Of baths, the best are the shower, sponge, sitz, and vapor; douche, acid, and sheet; warm, cold, and alkaline packs. Warm baths are mostly followed by a cooler shower. Dry-cupping relieves stricture and deep-seated pain.

Leucorrhœa, at its approach, may be checked by ablutions, diet, out-door exercise, early hours, and *abstinence from all causes of excitement*. *Stat. vit.* is aided by the hip-bath, vaginal injections, magnetism, dry-cupping the sacrum and loins, and all means of general invigoration. Sexual abuse is one of the most common causes of sterility. Uterine debility is the usual cause of abortion.

Displacements.—The remedy is the causing the organ to assume its natural position and

remain in the electric position which nature designed. This motorpathy effects by developing the life principle, so that the patient can be immediately raised upon her feet without injury or fear of displacement. The process must be repeated till the organ regains its tone. Systematic exercise and water-treatment are important. Until the organ and parts resume their contractile elevating force, water and exercise are useless or hurtful. Pressure, external supports, and confinement are worse than useless. The inviting back to the diseased organs that motion which they have lost, gives health. The mind requires medical aid as well as the body, and when diseased, can not be successfully treated while surrounded by the associations in which the trouble commenced. Continued severe pain, great heat, or a cold feeling of the head fore-show insanity or paralysis.

Deficiency of the nervous fluid is the predisposing cause of nervous headache and tic-doloureux. Motorpathy gives prompt relief. It succeeds well in palsy, hysteria, and convulsions from nervous irritation.

The treatment in all the varieties of displacement is similar; the true situation of the

parts must be ascertained by direct examination.

Spinal curvature, in all cases, is attended with contractions of some of the muscles which support the spine, and as a means for lessening these contractions and relieving the spinal nerves from the pressure occasioned by the curvature, a spring elevator resting upon the hips with arm-pieces slightly raising the arms, should be worn a few hours daily as a portion of the treatment. Thus cured, there will be no relapse.

Children, though needing more frequent meals than adults, should eat only at stated times. For a tendency to stoop or twist, a slight load on the head is a corrective. They should stand and sit erect; their seats should have backs and supports for the feet.

A contracted chest is expansible; its girth should equal that of the hips.

The erect attitude with the shoulders thrown back, lessens the labor of motion of all kinds; and in sitting, standing, walking, and sleeping, it is the best for the stomach, as well as the lungs. Action should always commence and close gradually. Slight laxness of the muscles and joints lessens fatigue and adds grace; and, in a jump, safety requires it with a bend-

ing forward, and a striking upon the toes. Repeat the action of each of the muscles at stated intervals ; compression dwarfs them.

Mismicturition, destitution.—Wet-pack and dripping-sheet, hot and cold hip and foot-baths, or perhaps better, the warm and then the cold dash to the loins and abdomen, and copious injections.

Retention.—A hot hip-bath, hot abdominal foment, and a dash of cold water ; sometimes a cold sitz ; these failing, use the catheter.

Strangury.—Copious water drinking and warm hip-baths ; sometimes the full warm-bath.

Diabetes has always *torpor of the skin*. The tepid dripping-sheet followed by the dry-pack, so as to produce moderate perspiration, and the half or shallow-bath, followed by the dry rubbing-sheet, with thorough friction of the whole surface. Use also the sitz and girdle. Drink for thirst. Diet: wheat-meal biscuits, brown bread, roasted potatoes, and Graham crackers.

Enuresis as above ; and sleep on the side.

Unassimilated urine.—Copious water-drinking, a strict diet, and a daily bath.

Erratic.—As above.

Calculus is caused by hard water, much salt

or saleratus, vinegar, alcoholic drinks, and flesh. For the pain, the warm hip-bath or the full warm or hot-bath; prolonged, use the wet-pack doubled or trebled. To cure, let the diet be strictly vegetable, the drink pure, soft water, and use frequent packing and rubbing-sheets, and whatever else the general health demands.

DISEASES OF THE SKIN.

Roseola.—The pack followed by the half-bath at 72°, with moderate rubbing, or the half-bath alone, and a plain scanty diet, will soon cure. The dripping-sheet and other washes, often used with proper diet, will answer. The full warm bath quiets vexatious itching. Avoid extremes and chills.

Scaly eruptions.—A pack of from one to two hours; the sheet doubled or trebled, followed by a thorough rubbing with the dripping sheet. Secure an after-glow. The persistent wet towel will cure *dandruff*.

Loose hair should be cut short and the head bathed once or twice a day in very cold water.

Blains.—As above. Attend specially to the diet. In all the varieties, free water drinking, frequent hip-baths, and the wet-girdle are proper. The *sordid* blain needs frequent very

cold washes, unless itchy and tender, then warm.

Scalls.—Thorough and frequent ablutions, vegetable diet, and constant wet compresses, and a mild even temperature; after a warm soaking of the sores, apply oil or cream.

Soap suds cures inveterate itch.

Vermination.—Soap suds or cold bathing and friction.

Macula, from diseased liver, disappears with its cure; from drugs, it is lessened by free water drinking and vegetable diet; the blue disease is incurable.

Morbid sweat.—Treat on general principles.

Morbid hair.—Cut it close, wash the head often in cold water usually; and, in *plica polonica*, warm with derivative baths and a strict regimen.

POISONS.

Acids.—Take chalk or magnesia, dissolved soap, lime, or carbonate of soda, and much water.

Alkalies.—Take acids, as vinegar or lemon-juice, or the strong acids largely diluted, or fixed oils. Inflammation from poisoning, requires the same treatment as that from other causes.

Salts neutral.—Drink much warm water and use the stomach-pump for niter, with wet-bandages around the abdomen, and often the warm-pack; for the others, give cool or cold injections and warm hip-baths.

Mercury.—Eggs, wheat-flour, and milk. To free the system, a long use of the packing-sheet, with frequent moderate sweats. For a large dose in paint or otherwise, swallow a batter of flour and milk, and use a stomach-pump.

Arsenic.—The stomach-pump and vomiting. Flour and water, and olive oil, hydrated sesquioxide of iron largely, (though no specific.)

Antimony.—Early the warm-water emetic, afterwards anti-phlogisticate. The bath must be moderate. The warm bath checks the evacuations.

Lead.—The warm-water emetic and the stomach-pump, soluble sulphates or alkaline sulphates, and carbonates, as soda, alum, Glauber and Epsom salts, are useful.

Copper.—Wheat-flour, milk, and white of eggs.

Bismuth.—Warm water and the stomach-pump.

Tin.—As for bismuth; acid, fatty, saline,

and albuminous substances, by contact with it for some time, become poisonous.

Silver, nitrate, etc.—Common salt deadens it. If saturated, long bathing and diet only, will begin to relieve.

Gold.—Albumen, flour, and milk.

Iron.—Muriated tincture, chalk and magnesia; for all other forms, warm-water vomiting, the stomach-pump, and cooling baths and diet.

Zinc.—As copper.

Manganese.—Half way from lead to iron. Treat as above.

Iodine destroys the glands, causes palsied limbs and limpsy joints. Treat on general principles; we have no antidote.

Phosphorus.—Give demulcents and alkalies.

Sulphur.—Treat as for an ordinary diarrhea.

Chrome, as lead.

Bromine, as iodine.

Alum.—Glauber and Epsom salts.

Metallic salts and oxides.—Vomiting and the stomach-pump, eggs and flour.

Narcotics demand the stomach-pump and warm-water emetics; afterwards the treatment of apoplexy. For exhausting diarrhea, the cold bandage and hot fomentations may alter-

nate, and small quantities of very cold water be injected.

Acrids.—Vomit, purge, soothe, and cool.

Mushrooms.—Warm water and the stomach-pump, with copious tepid injections.

Poison fish.—As erythema.

SURGERY.

The real setting of a bone is done a week after the injury.

Wounds are dangerous in the inverse ratio to the pain. A wounded limb should be *elevated*; and, in all wounds attend to the position of the muscles. The most trivial scratch or cut has been followed by bad sores, loss of limb, and even of life, in persons of extremely morbid blood and weak vitality. For bleeding, apply cold water near the wound on the heart side. For proud flesh, approximate the edges. The moderate douche benefits contused wounds; warm water relieves irritation and pain, when the cold compress should be applied. Cold streams and compresses promote absorption. Temper the water to the feeling; and use no air-tight compresses.

Concussion.—Quiet, warmth, and attention

to the circulation. Keep cold cloths over the head.

Compression.—Cold wet cloths to the head, or the pouring-bath and derivative baths, securing prompt reaction; hot foot and leg-baths for coma.

Bruises.—The cold dash and compress.

Strains.—A cold immersion or stream; afterwards wet compresses. Neglected, they may become white swellings; and in the scrofulous, the diet can not be too plain.

Burns and scalds.—Immerse or cover with soothing wet cloths. If denuded, dredge on flour. Febrile reaction calls for tepid ablutions and a warm room. For scalded throat and stomach, pour down cold water. Prevent, by banishing hot drinks.

Malphlebotomy.—The coldest water.

Protruded intestine must be replaced within forty-eight hours.

Wounds of the joints and synovitis require very strict diet, one or two general baths daily, constant local compresses, and occasional shallow foot-baths; for the knee, a half-hour leg-bath daily.

TUMORS.

Hernia.—When an adult finds a swelling at the groin, he can not see his physician too soon. Use cold water over the general surface, rather than about the protrusion; but avoid warmth.

Wheek.—A sober and temperate life.

Sycosis.—Thorough bathing.

Warts.—Nitro-muriatic acid, or better, chill them to death.

Corns.—Warm-water soaking, shaving, and nitro-muriatic acid.

Chilblain.—The cold foot-bath, bandage, and a bit of bladder. Thaw *frozen parts* in ice-water or snow.

Bunion.—A swollen bursa mucosa. Foot-baths; corn-like, caustic.

Ganglion.—If round, may be safely incised; diffuse, punctured; thinly cysted, burst.

Ranula.—Nip it with scissors, and put caustic on.

Epulis.—Eat it out with caustic potash.

Bronchocele.—Apply douches, as powerful as bearable, to the spine and tumor, with occasional wet-packs and a thorough course of derivative, half, hip, and foot-baths, with a plain,

abstemious, and dryish diet. The drop-bath is good an hour or more daily, with the wet compress. For costiveness, use tepid injections.

Whitlow.—Cold immersion of the limb, frequent and prolonged. Suppuration approaching, warmth to the sore and a cold bath to the elbow. Early make an inch or two incision down to the bone.

Stone-bruise is a felon, and needs soaking.

Schirrhus and Cancer.—Treat schirrus as bronchocele. Cancer should be early cut or burnt out. Prepare the system by bathing and dieting.

Fungus hematodes is an elastic lump under the skin. Treat as cancer; though it is incurable when the lymphatic glands are reached.

Bone cancer.—Cauterize into its center.

Carbuncle.—Cauterize in the worst cases. Moderate ones are curable by thorough packing, a rigid diet, and wet compresses.

Lupus.—Face cancer. The knife or caustic.

Aneurism.—The diet must be simple, bland, and opening; the body and mind, quiet; and all baths gentle.

Varix.—Compression with the roller; in

bad cases, caustic and a wet roller are safe, with due bathing and dieting.

White swelling.—Regimen as for scrofula. The cold pouring-bath, dash, or leg-bath, or moderate freezing when bearable. For pain, foment.

Hydropo articuli.—The dash, wet bandages, and packs, water-drinking and injections.

Varicoccele.—Hygienic habits, sitz-baths, or the ascending dash and a suspensory bandage.

Polypus.—Cauterize; for vaginal, use the ligature.

Nodes.—General bathing, abstemious diet, and compresses.

Enlarged prostate.—Frequent hip-baths and ascending douches, and a daily general bath; from a repelled discharge, warm hip and foot-baths, afterward cold treatment.

Ulcers.—Constitutional treatment is the main thing. For the healthy, a wet cloth; the irritable, warmth; and then the common compress; the indolent, fomenting, and mild caustics; varicose, strong compression, perhaps caustic; fistulous, the ligature or caustic.

Boil.—Wet dressing and a lancet. Gum-

boil preventable with coarse food and a tooth-brush.

Fever-sores require a long course of treatment; for pain, use warmth; for heat, the cold douche daily; for callous or fungous, the caustic; apply the roller twice a day, and *wet* it. Keep the whole body thoroughly bathed, the stomach and bowels free, and well cleansed by correct diet.

Caries and necrosis.—Early, a frequent douche, cold cloths, and a pack or two daily; ulcerating, the caustic.

Fistula in ano.—Combine ligature and the caustic.

Abscess maxillary has fetor, discharges from the nose, and swells the face. Use foment and derivative baths, extracting, drilling, and injecting.

Mammary.—Needless and shameful. Use the wet-pack, frequent tepid ablutions, with hip and foot-baths. Constant wet linen, often renewed and well covered, with free water-drinking and a dry diet.

Onyx needs the head and eye-baths, a moderate douche, and derivative hip and foot-baths.

Lumbar abscess.—Early, a daily pack-sheet, strict diet, injections, and wet cloths. Pus

forming, caustic, and moderately apply the wet compress.

Hip disease.—Treat as above.

Illness threatening, *rest*; convalescence commencing, heed in diet the strictest counsel.

PART IV.

FOOD, COOKERY, AND DIET.

INVALIDS whose diseases have been specially produced by particular articles of food, or a particular plan of diet, will, for the most part, be inordinately attached to those articles or that plan of living. Thus the gouty crave concentrated farinaceous food; and patients in whom flesh meat has long kept up an inflammatory diathesis, have a special horror toward a strict vegetable diet. The shriveled stomach and shattered nerves are crazy for the strong tea that has made them so; and the spoilt cachectic child cries for its cakes and candies. For such, there is no salvation without mastering the morbid appetite. Having adopted a plan, dismiss the stomach and feelings from your thoughts.

ANIMAL MATTERS.

Very young, very old, very fat, hard-worked, slop or filth-fed animals are bad food. Decomposition commencing at death, meat, *to be kept fresh*, should be immediately frozen. Flesh should soak half an hour, and lie in salt an hour to cleanse it of blood. It should be cooked only to tenderness. Broiling is the best mode, next boiling, roasting last; the oil must be removed. The white-fleshed *birds*, as chicken, turkey, partridge, and quail, are nearly equal to *beef and mutton*; the dark-fleshed are greasy and unwholesome.

Fish contains less nutriment than the flesh of birds; but it is light, unstimulating, and easily digested, and, therefore, a valuable diet for invalids. It should be eaten fresh, simply cooked, and seasoned only with salt and vinegar. The whiting, sole, turbot, haddock, and cod are of the best, being white and tender. Whitefish, trout, and bass are also good; but oily fish should be rejected. Salted codfish is mild food.

Oysters are the best of shell-fish, but must always be masticated. In summer, they must be eaten with caution, or laid aside. Stimu-

lating food is suitable only for old people, unless in cold climates and cold weather.

Fat.—In general, a *moderate* use of fat is wholesome to persons of good digestion; and the more so the farther to the north. It is of the highest moment in the development of animal warmth, which is mainly generated by the combustion of carbon, of which fat almost wholly consists.

Cheese is a highly concentrated stimulant and constipating aliment.

Butter, fresh made and slightly salted, sweet cream, fresh curd, and well-made pot-cheese and green cheese, are proper articles of diet; while strong or melted butter, lard, and rank cheese are pernicious. Honey or molasses is preferable to butter.

Eggs are digestible and nutritious, slightly cooked; but hard cooked, separately or in mixture, they are bad. Eggs stimulate less than meat.

Milk contains all the elements requisite for prolonged nutrition; and only in exceptional cases is the use of it improper. It increases feverishness even more than mild cheese. Mixed with sugar, and evaporated to one fourth, it may be long preserved in soldered tins.

PREPARATIONS.

Beef steak.—R. The sirloin, pound well and broil till moderately done.

Mutton chops.—Select. Trim off the fat, and broil as steak.

Stewed mutton.—Stew till tender, then dust in a little flour.

Boiled.—R. The leg and cook it two and a half hours.

Roast beef.—R. The sirloin ; remove the fat and cook till moderately done.

Corned beef.—R. The round ; keep it in brine two or three days, and broil till easy to cut.

Hash.—Chop cooked meat, and warm it with three or four times as much potato. Venison is good, fresh in Canada and Nebraska. Fish, not dark, oily, or strong, may be boiled or broiled. Season with milk, water, salt, and flour. Poultry should be broiled or stewed, and the oil removed. Eggs.—Pour on boiling water, and scald seven minutes ; or, if kept boiling, four and a half. They are best in slowly and slightly-cooked custard.

V E G E T A B L E S .

Grain, nuts, seeds, and fruits should be kept dry, clean, cool, and aired. Flour and meal should be *fresh ground*, as they absorb effluvia, and waste their substance as well as ferment by exposure. Nuts are kept well by packing with sand in boxes, or in the ground with straw. Beans, peas, corn, and rhubarb may be gathered green and dried for use. Vegetables sliced and steam-dried on metal plates may be ground into flour. Most vegetables remain very nice in confinement with ice. A dry wrapper affords protection to fruit, which is better for gathering a little before perfect ripeness. The principal preservative condition of perishable fruits is exclusion of the air. Subjecting fruits to a heat of 165° for a half-hour coagulates the fermentable gluten. If then sealed in stone bottles, it is safe. The cranberry and crab-apple keep a good while in cold water. The juice of many fruits keeps after scalding by corking it air-tight. Peach and tomato pulp, dried by the sun, steam, or oven, is good.

PREPARED FRUITS.

Baked apples.—Put a very little water in the tin. Stewed green apples. Boil in a little water till soft, then add some sugar; and, if you choose, flavor with other fruit. Boiled apples. Boil till soft, then pour on syrup. Stewed dried apples. Select, cleanse, cover with water, and boil till softish, then sweeten and finish.

Pears may be cooked like apples.

Peaches can be boiled, then sweetened. Stewed green peaches. Pare and stone them, add a little water and sugar, and cook slowly. Stewed dried peaches. Get good ones, and prepare as apples. Uncooked peaches. Pare, quarter, and sprinkle with sugar; or take ripe apricots. When cooking apricots, shake, not stir them. Stewing is the way to cook cherries. Put in them a quarter of their weight of sugar. To keep, pour on them a stronger syrup.

Quinces, stewed, are pleasant; and marmalade is better than butter. To make it, boil them soft, strain and beat, and add three fourths their weight of sugar; then boil till congealable, and mould.

Cranberries.—Stew soft, add half as much sugar, and simmer a little.

Blackberries are good with sugar or without. Sour or hard ones must be cooked, and so of all sorts of berries.

Strawberries commonly want a good deal of sugar.

Gooseberries should be well cooked.

Currants need but a short stewing and slight sweetening.

Plums are various, and must be treated accordingly.

Grapes of the best kinds are only harmed by the cook.

Pine-apple should be sliced and sugared.

Tomatoes.—Scald, peel, stew an hour or two, and add some toasted bread.

RELISHES.

Custard.—One quart milk, four spoonfuls flour, two sugar; make into porridge, then cup or crust, and bake. Or, boil two ounces ground rice in half pint milk; add four ounces sugar, one ounce grated cocoa-nut, four ounces cream, and bake slowly. Or, boil one pint cream, and, dissolving half pound sugar in

three fourths pint raspberry juice, mix it with the cream, and stir till thick.

Apple Cream.—Pare and boil soft good apples, rub through a sieve, and add sugar; when cold, stir in cream.

Snow Cream.—One pint cream, four ounces sugar, one gill lemon, two whites of egg beaten.

Pine-apple Cream.—Three quarters pint p. syrup, one pint cream, juice of a lemon, and four ounces sugar; mould, cover with double papers, and set it on ice.

Strawberry Cream.—Mash the fruit and a little sugar gently on a sieve; add sugar and cream, perhaps a little milk; whisk it, laying aside the froth for the top in serving.

Raspberry Cream.—Mash, then mix with the juice, sugar and cream; whisk, pour, and freeze in a big bucket with ice and salt.

Cherry Jam.—Four pounds cherries, one pound sugar, half pint currant juice; stone and boil stiff.

Grape Syrup.—Four pounds grapes, one pint water; boil well in covered brass or tin moderately, strain gently; keep it cool and covered a few hours, then to each pint put in a pound of loaf sugar, with a pint of water, to four pounds of sugar; dissolve it, gradually stirring till hot. Skim it clean before mixing

in the juice ; after mixing, skim again, and boil a quarter hour. Pour into a stone jar containing some lemon or cinnamon; next day, strain into close bottles, and keep it cool.

Baked Milk.—Tie a paper over the jar, and keep it twelve hours in a warm oven.

Curd Cheese.—To new milk add sour milk enough to change it into a soft curd ; add sugar or preserves, and eat.

Pot Cheese.—Curdle sour milk by scalding ; strain, and make cakes a half inch thick. The milk must have no bitterness, and, if very sour, it must be diluted with sweet milk before scalding.

PIES AND PUDDINGS.

Crust.—Flour or meal, or any mixtures of them, may be wet with water and shortened with cream, or milk and olive oil. Wheat-meal. R. Cream and water and work in the meal till there is a stiff dough. Wheat and potato. R. Flour of wheat and of potato a. a., or wheat-flour and mealy mashed potatoes, with milk and olive oil. Meal and flour. R. Graham flour and fine flour a. a. water and cream. Raised. Make a batter of flour or meal and half a pint sour milk, and add one

half tea-spoonful bicarb. soda ; and, with added flour, make quickly a dough, (inferior.) Wheat and rye. Half pint wheat, quarter pint rye, quarter pint cream, (and perhaps one potato,) and water. Bread. Pour hot milk on old bread or biscuit ; when cold, add cream or oil and flour.

Pies.—Pumpkin and egg : stew and strain, and to milk add for each pint a beat egg ; mix and stir till thickish ; sweeten and bake in a hot oven. Instead of eggs, an eighth pint of cream in the place of each will answer. Grated pumpkin or squash makes good pie ; the firmer and sweeter the better. Good ripe apples sliced and sweetened, and baked between two crusts forty minutes are worth eating. Dried : stew till soft, and sweeten ; make it half an inch between crusts, and bake half an hour. Carrots make pies similar to pumpkin.

Strained potatoes.—R. A quart of milk, an eighth pint cream, and two beat eggs to each half pound, make passable pies. Peach : good sliced peaches sweetened in a deep plate, with a spoonful of water, dust on flour and bake an hour. Dried peach made like apple, only thicker and baked one half longer. Custard : one quart milk, six beat eggs, and two spoon-

fuls of sugar; stir. Harden the crust on the plates; pour on the custard, and bake twenty minutes. Cranberry: simmer till soft; for each pound of fruit add half a pound of sugar; boil; then put it on a thick crust and bake moderately. Currant: stew and sweeten, (apple is well added.) Gooseberry: do. Dried fruits, cook as you like.

Puddings, rice.—Half pint head-rice, two quarts milk, one tea-cup sugar; bake three hours. Sago and apple: six ounces sago, five apples, one tea-cup sugar; pour boiling water on the sago; cool, then mix in the rest and bake an hour. Pearl barley: one half pound p. b.; soak twelve hours; exchange the water for one quart milk and a teacup of sugar, and bake slowly an hour. Barley and apple: soak twelve hours, and boil two hours in three pints water, put it with half a pound sliced apple, and two ounces sugar into an oiled dish, and bake an hour slowly. Bread: soak bits of bread, biscuit, or cracker with boiling milk; when cool, sweeten and bake an hour and a half. Cracked wheat: boil grits soft; dilute well with milk; sweeten and bake an hour. Hominy: take hominy and milk, sweeten and bake well one hour and a half or two hours. Indian meal, (one half pound,) one half pound

corn-meal, one quart milk, quarter pound sugar, two eggs. Boil the milk, mix in the meal, and sweeten; cool and put in the beat eggs; bake well three hours.

Tapioca.—Pour one pint warm milk on half a pint tapioca; when dissolved, add a pint more of milk; sweeten and bake an hour.

Snow.—(Two large spoonfuls raise as much as one egg.)

Christmas.—Mix one and a quarter pounds wheat flour or meal, half a pint cream, one pound stoned raisins, four ounces currants, five ounces sugar, one gill milk; compound them and add eight spoonfuls of snow, hastily tie in a bag taken from cold water and boil four hours.

Maccaroni.—R. Three ounces maccaroni, one pint milk, quarter pint cream, four ounces sugar, eight spoonfuls snow; mix the maccaroni with the milk by simmering; add the sugar and cream, stir in the snow quick, and bake till brownish.

Rice and apple.—Boil rice in milk, fill a dish half full of apples sweetened, pour on the rice and bake an hour.

Sweet apple.—R. Good sweet sliced apples, milk, and Indian meal; bake three hours.

Snowball.—Inclose mellow apples, spread with boiled rice, in cloths; to loosen, dip into cold water.

Apple custard.—A dozen sourish boiled with eight eggs, beat in sugar, and mixed with three pints of milk. It should bake half an hour.

Cottage.—Two pounds mashed potatoes, one pint milk, three beat eggs, two ounces sugar; bake three quarters of an hour.

Farina.—R. Ten ounces farina, one half pint milk, which stir into one quart milk boiling on the fire, and simmer eighteen minutes.

Fig and cocoa-nut. — R. One pound figs soaked, one cocoa-nut grated and its milk, four ounces sugar, and knead them with wheat meal into a soft dough, (snow is well added.) Leave room for swelling, and boil two hours.

Baked apple.—Boil one and a half pounds apples with one gill water and half pound sugar; stir in one gill cream or oil, one spoonful of flour or bread; flavor, and bake forty minutes.

Berry.—Make a batter of one quart flour or meal, three pints milk, three eggs; stew, sweeten, and add to the batter three pints of berries, and bake.

Custard.—Mix with one pint cream or milk,

one spoonful of flour, three beat eggs, and two spoonfuls sugar ; and bake half an hour.

Potato apple dumplings.—Boil mealy potatoes, and with flour make a dough ; roll up a prepared apple in each dumpling, and boil an hour.

Green corn.—To one quart grated corn add a tea-cup of cream, a gill of milk, a spoonful of flour, and two ounces sugar ; mix, and bake one and a half hours.

GRUELS.

Wheat-meal.—Two spoonfuls wheat-meal, mix with a gill of water, which stir into a quart boiling water. Boil fifteen minutes and skim.

Farina.—R. Two spoonfuls farina, one gill water ; stir while gradually pouring on one quart boiling water, and boil ten minutes.

Tapioca.—Soak one spoonful tapioca in one and a half pint water twenty minutes ; then boil, with stirring, till cooked, and sweeten.

Sago.—Soak two spoonfuls sago in half a pint water ; stir it into one and a half pints boiling water ; cook slowly and sweeten.

Currant.—Add two spoonfuls currants to one quart gruel, boil and sweeten.

Groat.—Steep several hours, boil till thick, reduce to gruel with boiling water, and, if you choose, add currants and sugar.

Arrow-root.—Mix one ounce arrow-root with water; pour on one pint boiling water with stirring, boil five minutes, and season with sugar and lemon-juice.

Rice.—Boil two ounces rice in one quart water; add two spoonfuls sugar, and boil two or three minutes; currants may be added.

Tomato soup.—Scald, stew an hour, and strain; stir in a little flour, and to a quart of soup add a tea-spoonful of sugar, and simmer five minutes.

Split pea.—Boil one pint split peas three hours in three quarts water, and add a spoonful of sugar.

Green pea.—Three pints peas, three turnips, a carrot and the pods; boil one quart of the largest peas with the pods soft, express the pulp, add the turnips, the carrot, and a quart of boiling water; when soft, add the other peas ready boiled.

Split peas and barley.—R. Three pints split peas, half a pint pearl barley, half a pound old bread, and one sliced turnip; steep the peas and barley twelve hours; add the bread, the turnips, and a half-spoonful of sugar; boil till

soft, express with a colander, add one quart boiling water, and boil ten minutes.

Barley.—Four ounces barley, two ounces bread, half an ounce chopped parsley. Steep the barley twelve hours, exchange the bread, and three quarts boiling water; boil in a covered vessel five hours, having the parsley in half an hour.

Green beans.—One quart garden or kidney beans, one ounce spinach, one ounce parsley; boil and mash the beans, add two quarts of next number, and a little flour; stir it on the fire, and put in the prepared spinach and parsley broth.

Vegetable broth is made variously, for example, R. Four turnips, two carrots, one onion, and a spoonful of lentil flour. Half fill the dish with the chopped vegetables, add water, boil and strain.

Barley broth.—Four ounces barley, three ounces Indian meal, three ounces cream, two turnips. Steep the barley twelve hours, boil it and the turnips an hour in five quarts fresh water; add the cream and meal, and simmer twenty minutes.

Spinach.—Two quarts spinach, half pound parsley, two carrots, two turnips, one celery root, and two ounces cream. Stew in one pint

water till soft, flavoring with lemon-peel; sieve it, add one quart hot water, and boil twenty minutes.

Vegetable and rice.—One pound turnips, half pound carrots, quarter pound parsnips, half pound potatoes, three spoonfuls rice; slice the vegetables, put the turnips, carrots, and parsnips into a quart of boiling water with the rice, and boil an hour; add the potatoes and two quarts water, and boil till done; rice, flour, and milk may be added and boiled fifteen minutes, if wished.

Cucumber and gumbo.—Six cucumbers, six ounces bread, four ounces gumbo, one ounce parsley, six ounces cream; cut up the cucumbers, gumbo, and parsley; stew and stir them three quarters of an hour; add two quarts boiling water, the bread and cream, and stew two hours; flour may be put in and boiled ten minutes.

VARIETY.

Boiled potatoes should be taken out before cracking; if old, soaked well before cooking, and always have the air after cooking.

Peeled.—Boil without a cover, and steam five minutes.

Browned.—When cold, put thick slices on a gridiron.

Shortening.—After boiling them peeled, twist each in a dry cloth. Brown mashed, the potato being mashed and seasoned with milk or cream, is slowly heated till brown.

Hasty.—Boil them, thinly sliced, in a little water, and add a little milk or cream.

Flour.—Grate them into cold water; when the pulp is settled, pour off the water, wash it over several times; when it is white and leaves the water clear, dry it, covered with paper; powder, sift, and bottle it.

Jelly.—On the flour pour boiling water.

Roasted.—Best in the ashes; time, one and a half hour. Sweet, cooked like the common.

Boiled turnips should be cooked before peeling, if tender.

Mashed.—Boil them sliced, squeeze out the water, mash them with milk or cream, and stir them on the fire three minutes.

Boiled parsnips.—Split them first. Stewed; boil them sliced in a little water; stir in milk and a little flour, and simmer fifteen minutes.

Onions are good for few invalids.

Carrots.—Like parsnips; but need more cooking.

Beets.—Boil whole, dip into cold water to

loosen the peel, and slice for the table. Baked : add lemon-juice after a bake of five hours. Stewed : slice the cooked roots ; simmer in milk fifteen minutes thickened with a little flour.

Asparagus.—Bundle and boil till tenderish.

Cabbage.—Quarter, and boil brisk three quarters of an hour in much water. Stewed : parboil in milk and water ; drain, shred, and stew it with milk or cream.

Cauliflowers.—Soak an hour in cold water, and boil in milk and water.

Broccoli.—Peel and boil fifteen minutes ; bunch it, add the cream, and stew ten minutes. Stewed cucumbers : quarter and boil, and eat with toast and cream. Greens, when boiled and drained, are seasoned with lemon-juice or vinegar.

String-beans.—Chop and boil ; when tough, strip the strings and break the pods first ; simmer with cream.

Vegetable marrow.—Peel, halve, and seed them ; boil soft, drain, and wash ; simmer with milk or cream.

Salsify.—Scrape, cut, and parboil ; chop it with milk or cream, and simmer it soft. Good clean *wheat*, boiled all day, is a good dish.

Rice, boiled whole till soft ; then with a

little milk, simmered fifteen minutes, is a good and rich dish.

Boiled peas and beans, new or old, are wholesome; boiled in pure water, and *seasoned on the table*.

Green corn (sweet is the best) boiled in pure water, and salted as eaten, is excellent food. And so is succotash, when seasoned with a little milk or cream only. Parched corn is wholesome.

Split peas, or other peas or beans soaked over night, and then boiled until completely diffused in the water, make the best soups; one pound to two quarts water. The very best puddings are made of cracked wheat, rye-meal, hominy, rice, stale brown-bread, and Indian meal. Potato and apple puddings are good. Excellent pie-crust can be made of wheat-meal, shortened with mealy potatoes and fresh cream or new milk; the coarsest of the bran may be sifted out. In the absence of cream, sour milk and super-carbonate of soda may be used. Indian meal or half-Indian, half-wheat does well. Custard made simply of eggs, sugar, and milk, and the above crust, is the best way of eating eggs.

The parsnip, turnip, beet, and carrot, cooked

soft and slightly seasoned, are of essential service with farinaceous food or flesh-meat.

Apples, pears, and peaches suit all the healthy, and the worst dyspeptics may learn to eat them with increasing advantage. Unless *perfectly* ripe, they should be pared, boiled, and sweetened. Baked apples are the best of cooked fruits; stewed pears and figs are very good, and tomatoes are good also.

Of uncooked fruits, choice grapes are the best. As a general rule, all sweet and moderately acid fruits, when full grown and perfectly ripe, are most wholesome, if eaten without any preparation or seasoning.

The most convenient mode of boiling grits, samp, etc., is by means of a tin or iron vessel, surrounded by hot water and contained within another vessel which comes in contact with the fire. Milk or a small portion of sweetening only, should be added to mushes. Hominy or samp requires six hours' boiling. Hasty pudding should be stirred rather stiff, and cooked fifteen minutes. Rye-meal mush is an excellent laxative.

MUSHES.

Cracked wheat.—Coarse grits require five or six hours' boiling. Hominy must be soaked

before cooking; the coarse boils an hour, the fine, half an hour. Samp wants several washings and six hours' boiling. Rye-meal mush is made like wheat grits. Indian mush: stir gradually into boiling water; it is good in quarter, but better in half hour. Oat-meal and wheat-meal are cooked like Indian, also farina. Rice: keep one pint head-rice in three quarts boiling water fifteen minutes; empty the water and steam it fifteen minutes; add syrup or sugar. Rice and milk: boil it twenty minutes, empty the water and add milk, and boil again. Corn-starch: dissolve half pound in one pint cold milk; add three pints boiling milk and boil six minutes. For moulding, previously dip the dishes in cold water; add fruit-juice.

Milk Porridge.—Boil a half pint water, then with it one and a half pints milk; stir in a spoonful of flour, ready mixed; pour it on bread.

Wheat-meal.—Stir a half pound into one quart of boiling water, and boil fifteen minutes.

Oat-meal.—Rub three quarters pound into cold water: add three pints boiling; boil twenty minutes.

Hominy.—Steep one pound H. ten hours;

pour off the water; add three pints milk, and bake two or three hours.

Sago.—Soak four spoonfuls a few minutes in one quart cold water; then boil gently one hour.

Rice and Sago.—A. a., and proceed as for the hominy.

Bean.—Mix three spoonfuls of the flour with one pint of water, and boil ten minutes, with constant stirring.

BREAD,

to be good, must be delicious to the senses of taste and smell. Unleavened bread sits best on the stomach. All bread must be light, dry, friable, and so porous as readily to absorb water; and it is indigestible if under-baked or overdone. A good brick oven is the approved bakery; but steam answers well. Take the dough in the tin, and place it on sticks, over boiling water, in a covered pot, from twenty to sixty minutes. The best bread is that made of coarse-ground, unbolted meal, mixed with pure water, and baked. New wheat-meal should be made into very thin cakes, and well baked. Indian-meal, to make light bread, must be coarse. Wheat-meal, with beans, po-

tatoes, peas, chestnuts, apples, pumpkins, comfrey root, or green corn, makes good bread.

Graham.—Mix the sponge thin; directly, when light, mould the loaves, and bake one and a half hours.

Potato.—Sieve mealy potatoes; mix in twice as much flour or meal; add water, ferment, and bake well.

Rye and Indian.—The more rye the stiffer it must be; the more Indian the longer it cooks. Pour boiling water on the Indian, and when milk-warm, add the rye and yeast; bake two and a half hours.

Apple.—One third apple; two thirds flour or meal.

Pumpkin.—Prepare the pumpkin; stiffen with Indian; add as much flour, and some yeast, and bake two hours.

Rice.—One pint soft-boiled rice, two quarts wheat-meal, a handful of Indian; mix with milk, mould, and ferment.

Moist Rice.—One and a half pints ground rice, three quarts water; boil three minutes; stiffen with wheat-meal, and, when blood-warm, add two gills yeast, and bake an hour.

Sweet Brown.—One and a half quarts wheat-meal, one quart rye-flour, two quarts coarse Indian, all fresh, a half tea-cup molasses, one

gill potato yeast; mix into a stiff dough with warm water. Let it rise by night, and bake six hours.

Currant.—Three pounds flour, one pound raisins, two pounds currants, one and a half pints milk, one gill yeast. Mix the milk, flour, and yeast. When risen, add the fruit, and mould; and in a half hour bake. Scalded. To one third of the meal apply boiling water; to the paste add warm water and yeast. When light and cold, add all the flour, and knead; bake lively till half-cooked, then slowly. In a cool place it cures in one and a half days.

CAKES.

Wheat-meal cakes, made of fresh Graham flour, good brown sugar, and sweet cream, raised with sour milk and super-carbonate of soda, and well-baked, are the best. Good ones can be made without the cream. Coarse Indian meal, moderately sweetened, makes good cakes without cream, and is more healthful without eggs.

Griddle-cakes should be raised with acid and alkali, and baked on soap-stone, and seasoned with sugar, molasses, or milk.

Wheat-meal Crackers.—With fresh wheat-

meal and pure water make a stiff dough ; make thin crackers, and bake cautiously in a brick oven.

Unleavened Cakes.—Make a thin dough with the meal and cold or scalding water, and make little cakes.

Wafers are very little crackers.

Indian-meal or Johnny Cakes.—Fresh coarse Indian meal, make into a stiff dough with boiling water ; mould three quarters of an inch thick, and bake.

Raised Indian.—One quart sour milk, two teaspoons bicarb. soda, four ounces sugar, and coarse Indian ; with the meal and boiling milk make a stiff batter ; add the sweetening and dissolved soda, hurry it into dough, and bake shallow.

Rich Corn.—One quart coarse Indian-meal, one and a half quarts scalded milk, a tea-spoon bicarb. soda, a half tea-cup sugar, six eggs ; mix and bake one hour.

Corn-cream.—A half quart thick sour cream, one quart milk or buttermilk ; thicken with corn-meal ; sweeten with soda, flour the pans, and bake it an inch thick rapidly.

Molasses.—Graham and fine flour, a. a., wet with warm milk and water, sweeten, raise, mould thin ; bake and set aside some hours.

Wheat-meal.—R. One quart, two gills cream, two gills sour milk, one tea-spoon bicarb. soda; one tea-cup sugar; mix the cream, milk, and sugar, and part of the flour; add the dissolved soda, and quickly the remainder; flour, and bake in shallow pans.

Indian Slappers.—One quart meal, two quarts milk, four eggs; mix the beaten eggs and the milk; stir in the meal, and bake on a griddle.

Wheat-meal Griddle Cakes.—Wet the meal with water or milk, and sweeten; raise it and bake without grease.

Buckwheat.—One quart flour, in a thin batter with warm water, a handful of Indian-meal, and a half tea-cup of yeast; make up over night.

Rice Griddle.—Soak, over night, one quart rice in one pint or more of milk and water; add one quart milk, as much flour, and two eggs, and bake on soap-stone; bread crumbs or rusk help.

Wheat and Indian.—Cooked like wheat-meal; dust the griddle with flour.

Oat-meal Fine.—Roll the dough to a wafer; bake slowly three or four minutes; harden it before the fire.

Potato.—Mashed and seasoned potato made

into dough, with meal or flour and yeast, may be rolled into cakes and baked when light.

Flour and Potato Rolls.—One pound potatoes, one and a half pounds flour, two ounces cream, three gills milk, and some yeast; mix the cream and a half pint of milk, and sieve; mix the remaining milk, warm, with the yeast, and add to the flour; when raised, make rolls, and bake well.

Slapjacks.—One pint coarse sifted Indian, one tea-cup fine wheat flour; stir into one quart milk, with three or four eggs. Bake on a griddle, and season with milk or sauce.

Sour Milk Biscuit.—Two quarts sour milk, three tea-spoons bicarb. soda in hot water; mix the milk with flour or meal; add the soda, and bake.

Shortened.—R. Wheat flour or meal, and cream, and milk and water; make a thin batter, add yeast and thicken, and bake slowly.

Rye Drop Cake.—One pint milk, two eggs, one spoonful sugar; stir in rye flour, and bake a half hour in cups.

Wheat-meal.—One pint milk, two spoons cream, two eggs, one spoon sugar; with these and wheat-meal make a batter, drop and bake twenty minutes.

Indian Muffins.—One quart coarse-sifted

Indian, two spoons cream, one quart milk, one spoon molasses, a half tea-cup yeast; make a thin dough, and, when risen, bake an hour in rings or pans.

Cocoa-nut Drops.—Cocoa-nut and sugar, and the white of two eggs; bake in drops the size of a penny.

Milk Biscuit.—One pound flour or meal, one spoon yeast, three gills milk; make the dough into balls, and, when risen, bake briskly.

Waffles.—Mix one quart fresh wheat-meal and cold milk into a batter; add four eggs, a half tea-cup of cream, a little sugar, and bake quick.

COLD.

Uncooked Bread Cake.—Soften figs with hot water, and knead them up with Graham flour for a ready meal.

Unbaked Bread Cake.—One quart parched corn, one tea-cup boiled rice; make into a loaf in a wet pan.

Uncooked Fruit Cake.—One quart ground wheat, one large grated cocoa-nut with its milk, a half pound raisins, a quarter pound grated citron; sugar dissolved in gum Arabic will gloss it; press it into the dish.

Potato Scones.—Knead mashed potatoes and

flour into a light dough, and roll it a half inch thick; shape, fork, and bake.

Dry Toast.—Dry bread, evenly browned just before using it, is the best food for very acid, bilious, and irritable stomachs.

Milk Toast.—Scald milk, and thicken it with a little flour or wheat-meal; carefully toast stale bread to a yellowish brown, and cover it with the gravy.

Cream Toast.—Toast six thin slices of stale bread; and, while hot, turn on a pint of hot milk and cream.

Wheat-meal Fruit Biscuit.—Make a dough of Graham flour and scalded figs; make into biscuits a half inch thick, and two or three square; bake quickly.

Frost Cakes.—One pound flour, a half pound sugar, a tea-cup cream, two eggs, a citron rind.

Jumballs.—One pound flour, eight ounces sweet oil, ten ounces sugar, two eggs.

Fruit Cake.—One and a half pounds flour or meal, a quarter pound raisins, a half pound black currants, four ounces sugar, one pint cream or oil, and eight eggs.

YEAST.

Boil a half pound flour and two ounces sugar in a gallon of water an hour; put it in stone bottles and cork and keep it milk-warm twenty-four hours; when half-pint will raise ten pounds of bread. Fermentation may be carried so far as to destroy the sweetness and richness of the loaf; and yet be arrested by the heat of the oven just before any appreciable acid is developed. Bread ready for the oven exhales a brisk, pungent, lively, but not in the least degree acid, odor. For raised bread, there is little to choose between bicarbonate of soda with sour milk or the bicarbonate of soda and hydrochloric acid. For sour milk of common tartness, one pint requires a tea-spoonful of the soda, one 3. Fifty drops of the muriatic acid neutralizes forty grains of the soda. The alkali must always be dissolved and thoroughly diffused through the whole mass of the flour, and when that is a stiff sponge, the acid diluted must be stirred through it *rapidly* with more flour, and the moment the mixing is finished, it should find the oven.

Hop yeast.—Boil a double handful of hops in a gallon of water, strain while hot, and stir in wheat-meal or flour till thick; when blood-

warm, stir in a pint of good yeast; keep it at 78° till light, cork and keep it cool, and it will be good ten days.

Rubs.—This is yeast mixed with wheat-meal or flour, and dried in a warm shade: half pint of them will raise three quarts of flour; one quart wetting is for five quarts flour or meal; ten quarts flour or meal make fourteen pounds bread. The wetting must be blood-warm. Yeast must be well stirred into warm water when used. Setting the sponge is no improvement to the bread; but it saves waste when the yeast proves worthless.

Sponge should stand till it cracks; then the mass is to be made into dough; kneaded till it stops sticking, moulded into a lump, floured, kept warm one hour or till light, then loaved and baked. Yeast must be sweet and brisk; fermentation just enough; heat and time of cooking right, and the exact quantity of yeast. Whiting, stone-dust, plaster, and chalk are detectable when in flour. Graham flour is easily and often adulterated.

New-York market articles of diet, by months.

--First month. 1. Common and sweet potatoes, beets, cabbages, turnips, preserved peas, and beans, apples, pumpkins, grapes.

2. Parsnips, drop pumpkins.

3. Parsnips, drop pumpkins.

4. Drop sweet potatoes, and add carrots and spinach.

5. Drop turnips, peas, beans, and grapes, and add currants, strawberries, and asparagus.

6. Drop beets and carrots, and add peas, string-beans, cherries, and gooseberries.

7. Drop parsnips, cabbage, asparagus, spinach, string-beans; and add sweet potatoes, peas, beans, young corn, squashes, whortleberries, tomatoes, apricots, and melons.

8. Drop strawberries, gooseberries; and add blackberries, pears, plums, and grapes.

9. Drop peas, squashes, raspberries, whortleberries, apricots; and add cabbage and pumpkins.

10. Drop beans, young corn, tomatoes, blackberries, peaches, melons.

11 and 12. Do.; with preserved peas and beans.

HYGIENIC DIETARY.

Standing articles. — Brown bread, white bread, cold cracked wheat, hard biscuit or Graham crackers, water, milk, sugar, molasses or syrup, salt.

WINTER.

Monday.—Breakfast : cracked wheat, mush, baked potatoes, green apples stewed. Dinner : beef-steak, boiled potatoes, pea-soup, apples. Dessert : rice-pudding. Supper : Indian cake, stewed prunes.

Tuesday.—B : rye and Indian griddle-cakes, baked potatoes, dried apples stewed. D : mutton-chops, mashed potatoes, boiled parsnips, baked tart apples. Dessert : pumpkin pie. S : Indian mush, dried peaches stewed.

Wednesday.—B : rice gruel, cold potatoes browned, green apples stewed. D : corned beef, potatoes, cabbage, apples. Dessert : Indian pudding. S : milk toast, boiled apples sweetened.

Thursday.—B : wheat-meal griddle-cakes, baked potatoes, green apple-sauce. D : boiled mutton, potatoes, white beans, stewed cranberries. Dessert : apple pie. S : dry toast, dried whortleberries stewed.

Friday.—B : water-biscuit, boiled potatoes, dried peaches stewed. D : boiled halibut, sweet potatoes, beets, baked apples. Dessert : custard. S : stewed figs, hominy.

Saturday.—B : rye-meal mush, cold sweet potatoes browned, green apple-sauce. D :

roast beef, potatoes, turnips, dried currants stewed. Dessert: tapioca pudding. S: wheat-meal sweet-cake, baked apples.

Sunday. — B: buckwheat griddle - cakes, dried apples, and raspberries. D: roast beef, potatoes, Lima beans, baked tart apples. Dessert: bread pudding, dried squash pie. S: oat-meal mush, dried apples, and prunes stewed.

SUMMER.

Monday.—B: Indian cake, young currants stewed. D: roast lamb, potatoes, asparagus, grapes. Dessert: tapioca pudding. S: oat-meal mush, strawberries.

Tuesday.—B: rye-meal mush, red cherries. D: beef-steak, potatoes, green peas, stewed tomatoes. Dessert: strawberry pies. S: dry toast, whortleberries.

Wednesday.—B: cracked-wheat mush, red raspberries. D: mutton chops, potatoes, beets, string-beans, uncooked tomatoes. Dessert: rice pudding. S: water - biscuits, boiled peaches.

Thursday.—B: rice-gruel, black raspberries. D: corned beef, potatoes, spinach, green corn, tomatoes. Dessert: raspberry pie. S: milk toast, boiled pears.

Friday.—B: rye-meal cakes, black cherries. D: boiled cod, potatoes, succotash, baked apples. Dessert: custard pudding. S: hominy, blackberries.

Saturday.—B: boiled rice, peaches. D: beef-hash, potatoes, squash, green peas, tomatoes stewed. Dessert: whortleberry pie. S: wheat-meal water-biscuits, stewed blackberries.

Sunday.—B: oat-meal cakes, stewed green apples. D: boiled eggs or chicken, potatoes, succotash, musk-melons. Dessert: *blanc mange*. S: wheat-meal sweet cake, baked sweet apples.

The dietary for one might answer for two or more days.

HYDROPATHIC DIETS.

Full mixed.—For the well and invalids of good digestion. Bread, mush, butter, cream, milk, potatoes, and fruit for breakfast. Bread, vegetables, fruits, plain pudding or pastry, with flesh, fish, fowl, or eggs for dinner.

Full vegetable.—Like the full mixed, omitting the flesh, fish, fowl, and eggs. This diet is for the inflammatory, the nervous, the gouty, and rheumatic, incipient consumption, scrofula,

scurvy, neuralgia, most cachexies, and nearly all female complaints.

Strict diet.—Bread, mush, milk, sweet cream, potatoes, and good grapes or apples, or their equivalent; and of them just what is needed. This is for most chronic diseases without great corpulence, emaciation, or extreme dyspepsia. Skin diseases, liver complaint, catarrh, bronchitis specially.

Abstemious diet.—The same as strict; but limited to a scanty amount. It is to increase absorption; and is adapted to glandular enlargement, protracted chill fever, enlarged liver and spleen, tumors, ulcers, and skin diseases, mucous dyspepsia and irritable piles; and in prolapsus and other displacements, *with great relaxation*, it is indispensable.

Dry diet.—Crusts of bread, roast potatoes, Graham crackers, and apples or their equivalent. This is to obviate flatulence, water-brash, sick headache, etc. It corrects the saliva, gastric juice, and bile; hardens the gums and strengthens the stomach.

Watery diet.—Milk, grapes, parsnips, and potatoes are suitable; it is for gravel, gallstones, brittleness of the bones, and gouty and rheumatic concretions.

Fever diet.—Gruel of Indian or wheat-meal,

toast-water, barley-water, and lemonade are sometimes a pleasant substitute for pure water, and about as good.

DYSPEPTIC DIETARY.

Breakfast.—Coarse bread, apples, grapes, peaches, pears, and other sweet or pleasant ripe fruit, water or a taste of milk.

Dinner.—Mealy potatoes, baked apples, or grapes, coarse bread, cold grits, mush of oat-meal or rice, seasoned with a trifle of milk or sugar, asparagus or green peas, and a little water.

Supper.—Coarse toast or crackers, and baked sweet apples, or mealy potatoes and baked apples; eat little and drink nothing.

NURSING.

The Nurse needs special education and practice as much as the Physician and Surgeon.—Rules: Before bathing a patient, get a coarse and a fine towel, a sponge and a soft flannel, and, to protect the bedding, a sheet; also regulate the temperature of the room. Sponge, dry, rub, and dress, by parts. The portions of the system most neglected, as between the fin-

gers and toes and the flexions of the joints, need special cleansing and rubbing. At least two thorough bathings in twenty-four hours should be given the sick, and at the times of greatest vigor. Spirits or vinegar dries and hardens the skin, instead of cleansing it. *Water-gruel* should not be made disgustingly; but always food for the sick should be prepared in the most neat and careful manner. Bed-linen and body-linen must be aired every day and often changed. Fresh air should come constantly into the room, but not stream upon the patient. The thermometer, and not the feelings of the patient or nurse, should be the well-consulted index of temperature. Chilling aggravates the disease, and excessive warmth unfits the system for rapid convalescence. No visitor, whether for kin or religion, should come near the sick; for depression of the nervous system always follows the excitement.

Whispering is the worst of noises. The looks and words of the nurse should be cheerful, and should never imply doubt of the patient's recovery. Six hours at a time should limit attendance in the sick-room. Bathe often, keep dry clad, and partake regularly of nourishing meals.

Watchers should have knowledge and prac-

tice; also cheerfulness, gentleness, firmness, and attention. Before entering the room take a simple nutritious supper, and a little plain food in the night, and avoid tobacco and alcohol, which increase absorption and the danger of infection. Toward morning see that the dress is warm. At evening prepare all things for the night. The rules for the nurse, and silence must be observed. Educated and trained watchers and nurses, friends in *deed*, would employ and pay. Removal of the skin or cuticle greatly increases absorption; but lunar caustic forms on the exposed surface an impervious coating. Anoint the hands before touching any contaminating substance, and plaster close any sores. Excessive stimulation of any secretory organ debilitates and may destroy it; and, in the case of continual spitting, not only the salivary glands but the whole system is reduced. Mental emotions and changes of temperature affect the secretions. Flame is bright in wholesome air. Restlessness, languor, and head-ache indicate a foul atmosphere, which gradually benumbs the nervous system, and corrupts and stagnates the blood. It is doubly hurtful to the sick. *An opening in the ceiling or chimney and one near the floor of every room is the only safeguard.*

Sea-bathing.—The sea-bath in its season here is about 70°. Fresh water, with a good beach and pure air, would be better. One of the advantages of the sea-shore is its freedom from miasms; another is its coolness. A bath in the open air is better than one within doors; and sea-shore bathing is necessarily connected with beneficial exercise. In some cases, weeks of partial bathing should be spent before a full immersion.

Much cold bathing renders nervousness and debility worse. Rightly managed, a patient improves twice as fast in cold as in hot weather. Preserve the skin as soft and smooth as possible; with this caution, and with the hand, or over a sheet, too much friction can hardly be given the bloodless and inactive skin. Cures by sweating are rarely permanent.

Hunger-cure.—Let a patient with piles abstain from food three or four days, and the bowels will at first cease to act, and afterwards their action will be with less inconvenience. The experiment may be repeatedly made with ever-increasing benefit.

During epidemics, those almost starving have gone free while the well-fed have in multitudes been cut off. In chronic disease, the secretions are bad, and in scrofula, etc., morbid

matter is locked up in deposits. Partial bandages of three or four thicknesses, with dry covering, are applied to the parts and re-wet before dry. In case of sweat, dry rubbing is used. Drink is dissallowed during and for a time after the pack. The treatment is relaxed sometimes a few days. Much exercise is not advised. The dress should be comfortable. In convalescence the appetite must be held in check. Wet sheets, bandages, and abstinence remove acute disease ; it should have the after-cure.

The body-bandages are usually kept on fully eight hours at a time, the patient lying well covered to the neck in bed, the room being at 66°. From two to five wet-sheets are used at a time. The mouth may be rinsed with warm water.

In the Fore-cure, drink is taken once a day, four-and-a-half hours after dinner. The breakfast is a tumbler of crust coffee and a stale two-ounce biscuit. Dinner, a little lean beef, thick coarse soup, and sometimes vegetables. Supper, a little dry bread and rice pap. (Bread-crust may be nibbled through the day, if craved.) Two or more weeks pass under this regimen.

In the Strong-cure, at one A.M., the wet-sheet is applied for eight hours ; drink is not allowed in, nor washing after it. Diet : Dry stale biscuits, with a trifle of drink.

In the After-cure, the wet-sheets and bandages are left off, but the diet is continued. In about three weeks, the patient is put upon a dry-bread diet, without any drink, three or four days, and wrapped eight hours a day in three or four wet-sheets, when, if the tongue does not coat nor urine darken or precipitate, he is pronounced well ; if not, he goes back to the strong-cure. In the process, thirst diminishes, appetite at first sinks, then permanently improves, the tongue awhile is white-coated, later its covering is thick yellowish, brownish, or black slime, which clears from the tip, and by degrees the whole tongue, leaving the beauty of health. The taste is at first blunted, then sour, bitter, or metallic ; finally, saltish and natural. The muscles become flaccid, feverishness and depression come on, with pain and irritability. The stomach relaxes and falls in, the movements of the intestines are sensible, and dyspeptic stomachs dislodge amazingly matter tough and slimy, then pus-like and offensive, diminishing by degrees. The urine, at first scanty, increases ; and, after divers

changes till, the body, being pure, it has a clear straw color. The bowels cease to act after two or three weeks, and without pain or harm, after which there is often a diarrhea of offensive matter, perhaps piles, then improvement. The skin becomes fresh and healthful. Dogs fed on superfine bread and water live only seven weeks; but, on unbolted bread, they remain in health.

The following is thankfully received, and gladly inserted: I think, however, a dozen bushels of ice, in tubs, would help a church in dog-days, and one or two a sick-room or parlor. Their atmosphere should be as low as 60°.

NEW-HAVEN, Sept. 20, 1854.

DR. LUCIUS MILLS:

DEAR SIR: If water contains carbonate of lime, dissolved by carbonic acid, it should be boiled, which will expel the gas and precipitate the lime. If salts are present with earthy bases and fixed acids, boiling will be of no avail; but the water is, in such cases, made capable of washing by boiling it with a bag of ashes—vegetable ashes—suspended in it. If lime is the basis it will be thrown down. In limestone countries it is best to drink filtered rain-water, or the water may be distilled and the condensed vapor will be pure. Freezing purifies water to a certain extent. As to dietetics—eat what you know

from experience will agree with you—eat slowly, and stop before the organs are loaded.

Ice, in sufficient quantity, will cool rooms, but would be of difficult application. Sprinkling with water is effectual, and the hot air should be excluded after cooling the rooms by ventilation; the windows and doors should be then closed before the heat comes on, and the direct sunbeams excluded. My practice is, to dash myself from head to foot every morning with cold water; then wipe dry and rub hard with a rough towel. I use a large sponge that will take up a gallon of water, and I do not omit the cold water even in the heaviest weather. This might not do for a very delicate person, whose vital energy was not sufficient to produce warmth by reäction. I grow warm under the operation. I drink only cold water and tea; coffee affects my nerves, but tea is to me cheering. There is no general rule as regards tea. Many use cold water only, and I have known such persons to be very healthy.

Wishing you all the success you anticipate,

I remain, yours truly,

B. SILLIMAN, SENR.

N O T E S .

[*Introduction.*]

“Medicine sometimes *assists* in the removal of disease, yet the frequent administration of any kind of it, will cause serious disease; and, in a great proportion of cases, including fevers and inflammations, *hygiene* will more certainly, more speedily, and more safely relieve the system without than with medicine; which no one should taste or touch without good counsel.”—*Cutler's First Book of Hygiene.*

[*Page 6.*]

The windpipe or the nerve vitalizing the lungs being severed, the flow of blood instantly stops. And, in many instances, animals stone dead for hours, have been restored to life and activity by inflations. The heart is but a secondary agent in the circulation; as, in repeated instances, it has been utterly powerless in that respect long before the circulation failed in its force and regularity. The pulse is no measure of the rapidity of the circulation; but simply of the number and force of the obstacles to the current.

[*Page 18.*]

Fifty years ago “the rain-water doctor” passed through this State, dealing out to multitudes vials of unmedicated water, and strict orders for scanty diet, and many were cured. Since then a doctor of good practice satisfied his patients for years, with the same article and crumbs of bread. And for a number of years a host of doctors have been well supported for giving *imaginary* doses and ordering diet. Learn, then, that *health comes of Faith and Will.*

ERRATA.

PAGE 3, line 2, *for* NO BODY *read* NOBODY.

“ 6, last line, *for* stream *read* steam.

“ 8, line 6, *for* load *read* tun.

“ 12, last line, *for* acid *read* acrid.

“ 15, ninth line from bottom, *for* dozing *read* dosing.

“ 17, line 14, *for* fear *read* fever.

“ 19, third line from bottom, *for* functions *read* function.

“ 21, sixth line from bottom, *for* ice *read* ice-water.

“ 25, eighth line from bottom, *for* acid *read* acrid.

“ 27, line 3, *for* imbibation *read* imbibition.

“ 27, sixth line from bottom, *for* forbid *read* forbids.

“ 29, line 6, *for* crisis *read* crises.

“ 38, eleventh line from bottom, *for* causes *read* cures.

“ 39, line 1, *for* heating or cooling *read* cooling or heating.

“ 39, eighth line from bottom, *for* application *read* applications.

“ 72, line 17, *for* anginosi *read* anginose.

“ 78, line 3, *for* dyspepsia *read* dyspnea.

“ 117, line 10, *for* mollitics *read* mollities.

“ 138, line 7, *for* Hydropo *read* Hydrops.

For centre *read* center, *passim*.

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